

11 August 2014

Ms. Becky Setzman Becker  
Equity Residential  
Two North Riverside Plaza, Suite 400  
Chicago, IL 60606

**Re: Limited Phase II Environmental Site Assessment  
South Hill Street and West 4th Street  
Los Angeles, California  
Langan Project No.: 700036601**

Dear Ms. Becker:

Langan Engineering and Environmental Services, Inc. (Langan) is pleased to submit this Limited Phase II Environmental Site Assessment (ESA) performed for the property located at the eastern corner of the intersection of South Hill Street and West 4th Street (Property) in Los Angeles, California (Figure 1).

## **SITE DESCRIPTION AND PROPOSED DEVELOPMENT**

The Property is comprised of approximately 32,000 square foot (SF) asphalt parking lot and 330 SF taco stand (Figure 2). Based on soil borings during this Limited Phase II ESA, the upper 20 to 25 feet of soil at the Property is comprised of engineered fill and alluvial deposits. Tertiary San Fernando Formation claystone underlies alluvium at the Property. A perched groundwater zone is encountered at depths ranging from 14.35 to approximately 19 feet bgs. Topography at the Property slopes gently down towards the south.

Our understanding of the proposed project development is based on information discussed during a telephone conversation and review of a Proposed Boring Location Map (undated) provided in an email on 15 May 2014. Based on those discussions, the proposed development will consist of constructing multi-story, multi-family apartment buildings at the site. Proposed development activities will include a 30-foot-deep excavation for an underground parking garage.

Approximately 42,500 cubic yards of soil are estimated to be exported from the site. Construction dewatering may be necessary depending on conditions encountered during construction.

## **BACKGROUND**

Langan prepared a Phase I ESA for the Property. The following recognized environmental conditions (RECs) are noted for the Property:

- The EDR report indicates the presence of two EDR US Hist Cleaners sites within the vicinity of the Property. An EDR US Hist Cleaners site located at 354 South Hill Street reportedly operated in 1924 and is located in the southwestern portion of the Property. A second EDR US Hist Cleaners site is located adjacent to the Property, at 321 West 4th Street, and reportedly operated in 1933. It is our opinion that the former EDR US Hist Cleaners sites are RECs, because of their proximity to the Property; because cleaners may use hazardous materials such as chlorinated solvents; and because no waste management regulations were enacted during historical cleaners operations.
- A subsurface geotechnical investigation performed from 21 to 23 May 2014 revealed gray-stained soil with a distinct hydrocarbon odor in one boring at a depth of approximately 15 feet below ground surface (bgs) in the northern portion of the Property. Soil samples collected at depths of 10 and 20 feet bgs did not reveal any evidence of petroleum hydrocarbon contamination. Soil samples from borings elsewhere on the Property did not reveal evidence of petroleum hydrocarbon contamination. No potential on-site or adjacent sources of petroleum hydrocarbons were identified in EDR records or during agency file reviews. Due to the historical presence of commercial buildings at the Property since at least the early 1900s, heating oil tanks may have been present at the Site during its history. It is our opinion that the presence of petroleum hydrocarbon contamination in on-site soil is a REC.
- Soil sampling results from subsurface investigation performed from 21 to 23 May 2014 indicated that lead concentrations in two samples (200 milligrams per kilogram [mg/kg], LB-1 at 5 feet bgs; 510 mg/kg, LB-2 at 5 feet bgs) exceed the residential Environmental Screening Level (ESL) of 80 mg/kg. In addition, arsenic concentration in one sample (15 mg/kg, LB-2 at 20 feet bgs) exceeds the residential ESL of 10 mg/kg. It is our opinion that the presence of elevated lead and arsenic in three samples is a REC.
- The Property is located within the Methane Buffer Zone as established by Ordinance Number 175790 as adopted by the Los Angeles Municipal Code (Section 91.106.4.1 and Division 71, Chapter IX). It is Langan's opinion that presence within a Methane Buffer Zone is a REC for the Property, since methane zones and oil fields are sources of petroleum hydrocarbons.

## **SITE INVESTIGATION**

Langan performed soil, soil vapor, and groundwater sampling at the site. Our scope of work was based on a 10 June 2014 proposal for a Limited Phase II ESA and a request to collect soil samples for waste characterization, conduct methane and soil vapor sampling according to the Los Angeles Department of Building and Safety (LADBS) methane specification, and evaluate suspected RECs and historic areas of potential concern identified at the Property as noted during a Phase I ESA.

Soil disposal and recycling facilities typically require waste profile characterization from five soil samples for the first 1,000 cubic yards of soil, followed by one sample per additional 500 cubic yards. Thus, approximately 88 soil samples will need to be analyzed for waste profiling for the Property. Langan has collected and analyzed 47 soil samples for waste profiling, leaving a balance of 41 soil samples to be collected and analyzed during planned excavation.

## Utility Location and Soil Investigation

Per a request from Equity Residential on 15 May, Langan coordinated environmental sampling field activities with Leighton and Associates. Leighton's contracted drillers, 2R Drilling, advanced four geotechnical borings on the Property during three field days (21-23 May). Borings LB-1, LB-2, LB-3, and LB-4 (Figure 2) were drilled to total depths between 50 and 80 feet bgs using a CME 75 truck-mounted hollow-stem auger (HSA) drill rig. 2R Drilling used a split spoon sampler and 6-inch-long, 2.5-inch-diameter stainless steel rings to collect soil samples at 5-foot intervals from 5 feet bgs to a depth of 31.5 feet bgs for the purposes of waste soil profiling during development.

To further evaluate the RECs discussed above, Langan marked 4 boring locations (LB1-SGS, LB2-SGS, LB3-SGS, and LB4-SGS; Figure 2) on 4 June 2014, using white survey paint. Langan then notified DigAlert of the boring locations to obtain further utility clearance around the proposed boreholes. On 9-10 June 2014, under the observation of a Langan geologist, Martini Drilling Corporation (MDC) drilled the 4 borings. Each boring was observed and logged by a Langan geologist. Borings were hand-augered to 5 feet bgs to clear subsurface utilities, and then advanced to a total depth of 31.5 feet bgs using a CME 75 truck-mounted HSA drill rig with a 3.25-inch inner diameter HSA bit. MDC used an SPT sampler and 6-inch-long, 1.5-inch-diameter brass rings to collect soil samples on 5 foot intervals from 5 feet bgs to the total depth (31.5 feet bgs).

Each boring was observed and logged by a Langan geologist. Retrieved soil samples were screened for volatile organic compounds (VOCs) and methane using a photoionization detector (PID) and a lower explosive limit (LEL) detector. The lithology in each boring was classified in the field in accordance with the Unified Soil Classification System (USCS). Boring logs are presented in Attachment A. General lithologies encountered included sand, clayey sand, and sandy clay fill material from the surface to a depth of 5 to 10 feet bgs; clay, sand, and gravel alluvium from 5-10 to 15-25 feet bgs; and silty claystone from 15-25 feet bgs to total depth.

## Soil Sample Collection and Analysis

A total of 47 soil samples were collected in stainless steel or brass sleeves, capped with Teflon sheets and plastic caps, labeled, recorded on a laboratory chain of custody form, and placed in a chilled cooler. Due to low recovery, a sample was not collected at a depth of 15 feet from boring LB-3.

Langan submitted soil samples to SunStar Laboratories, a California-certified stationary analytical laboratory, to analyze all samples for total petroleum hydrocarbons (TPH) by EPA Method 8015 Modified, VOCs by EPA Method 8260B, and Title 22/California Assessment Manual (CAM) 17 metals by EPA Method 6010B and 7000. Soil laboratory analytical results are summarized in Tables 1 and 2 and included in Attachment B.

## Groundwater Investigation

Groundwater was encountered in 7 of 8 borings at depths ranging from 14.35 feet bgs (LB4-SGS) to approximately 19 feet bgs (LB-1). Samples collected from beneath the groundwater zone were not saturated, indicating groundwater is present in a perched zone.

Leighton and 2R Drilling installed a nested groundwater monitoring well in boring LB-2. The monitoring well is screened from 25 to 35 feet bgs, and from 10 to 20 feet bgs, with a bentonite seal separating the two screened intervals.

MDC placed 10 feet of temporary slotted PVC pipe and approximately 20 feet of blank PVC pipe in boring LB1-SGS. Following collection of a grab groundwater sample from LB1-SGS, MDC removed the PVC casing and installed a soil vapor probe as described below.

### **Groundwater Sample Collection and Analysis**

A Langan geologist gauged the depth to groundwater and collected unfiltered groundwater samples from the temporary well casing installed in LB1-SGS and the two screened intervals from the nested monitoring well installed in LB-2. A total of 3 grab groundwater samples were submitted to SunStar to analyze for TPH, VOCs, and Title 22/CAM 17 metals. In addition, the sample from LB1-SGS was analyzed for general water quality parameters. Groundwater analytical results are summarized in Tables 3 and 4, and included in Attachment B.

### **Soil Vapor Investigation**

Due to the presence of a perched groundwater zone at the Property, soil vapor probes were installed at 5 feet bgs in borings LB1-SGS, LB2-SGS, LB3-SGS, and LB4-SGS. To install each soil vapor probe, MDC backfilled each boring to 6 feet bgs using a 1:1 mix of bentonite grout and Portland cement. Four to nine inches of dry bentonite chips were placed in the boring, followed by 6 inches of No. 3 sand. A porous steel probe attached to 0.25-inch diameter Nylaflow tubing was lowered into the boring. The boring was then backfilled using an additional 8 inches of sand, 6 inches of dry bentonite chips, and hydrated bentonite chips to the surface. A probe box was inserted into each boring and encased in cement. A two-way valve was installed on the end of the Nylaflow tubing.

### **Soil Vapor Sample Collection and Analysis**

On 12 June 2014, H&P, a California-certified mobile soil vapor laboratory, purged the 4 soil vapor probes (LB1-SGS, LB2-SGS, LB3-SGS, and LB4-SGS) and collected and analyzed soil vapor samples, per Department of Toxic Substances Control (DTSC) and LADBS guidance. Following a purge volume test conducted at LB1-SGS, one purge volume was selected for soil vapor sample collection. The soil vapor probes were purged at a rate of 5 liters per minute (L/min). A field duplicate sample was collected from boring LB2-SGS. Samples were collected using gas-tight glass syringes with Teflon seals, and were analyzed for VOCs, methane, TPH as gasoline, and the leak check compounds 1,1-Difluoroethane and 1,1,1,2-Tetrafluoroethane. Soil vapor analytical results are summarized in Table 5, and included in Attachment B.

After completion of soil vapor analyses, soil vapor probes were abandoned. Abandonment consisted of removing tubing from the well boxes, where possible, and sealing void space with a 20:1 mixture of Portland cement and bentonite grout. The tubing was cut at the base of wells LB1-SGS and LB3-SGS, and a syringe was used to inject cement grout directly into the remaining tubing. Cement grout was poured over the top of the tubing in order to seal the probe. Tubing was removed completely from probes LB2-SGS and LB4-SGS, and cement grout was poured into the void space until the hole was filled to the top. Probe covers were bolted in

place over the abandoned probes and will be demolished during proposed site redevelopment activities.

## RESULTS

### Soil Results

VOCs were not detected in any of the analyzed soil samples.

TPH was detected in 5 of 47 soil samples. The following TPH compounds were detected in soil samples at concentrations that exceed residential environmental screening levels (ESLs; San Francisco Regional Water Quality Control Board [RWQCB], December 2013):

- Diesel-range petroleum hydrocarbons (DRO) in sample LB-1-R-3-DUP (15 feet bgs, 1,500 milligrams per kilogram [mg/kg]) exceed the "residential deep soil" ESL of 500 mg/kg.
- Motor oil-range petroleum hydrocarbons (MORO) in sample LB-1-R-1-DUP (5 feet bgs, 100 mg/kg) and LB2-SGS-5'-5.5' (5 feet bgs, 1,800 mg/kg) exceed the "residential shallow soil" ESL of 100 mg/kg.

Metals were detected in all 47 soil samples. The following metals were present in soil samples at concentrations that exceed residential ESLs:

- Arsenic in sample LB-2-R-4-DUP (20 feet bgs, 15 mg/kg) exceeds the residential deep soil ESL of 10.0 mg/kg.
- Barium in samples LB2-SGS-5'-5.5' (5 feet bgs, 800 mg/kg) and LB4-SGS-5.5'-6' (5.5 feet bgs, 1,500 mg/kg) exceeds the residential shallow soil ESL of 750 mg/kg. Barium concentration in sample LB4-SGS-5.5'-6' exceeds 10 times the barium soluble limit threshold concentration (STLC) of 100 mg/L. The barium waste extraction test (WET) analysis for LB4-SGS-5.5'-6' reported 0.41 mg/L, which is significantly less than the STLC of 100 mg/L.
- Lead in samples LB-1-R-1-DUP (5 feet bgs, 200 mg/kg), LB-2-R-1-DUP (5 feet bgs, 510 mg/kg), LB2-SGS-5'-5.5' (5 feet bgs, 1,400 mg/kg) exceeds the residential shallow soil ESL of 80 mg/kg. Additionally, lead in LB1-SGS-15'-15.5' (15 feet bgs, 77 mg/kg) exceeds 10 times the lead STLC of 5 mg/L.
  - Lead WET results for samples LB-1-R-1-DUP (24 mg/L), LB-2-R-1-DUP (17 mg/L), and LB2-SGS-5'-5.5' (14 mg/kg) exceed the STLC. The lead WET result for LB1-SGS-15'-15.5' (4.8 mg/kg) does not exceed the STLC.
  - Lead toxicity characteristic leaching procedure (TCLP) analyses for LB-1-R-1-DUP (< 0.10 mg/L), LB-2-R-1-DUP (0.31 mg/L), and LB2-SGS-5'-5.5' (0.49 mg/L) do not exceed the TCLP of 5 mg/L for classification as Resource Conservation and Recovery Act (RCRA) hazardous waste.

- Zinc in sample LB2-SGS-5'-5.5' (5 feet bgs, 1,100 mg/kg) exceeds the residential shallow soil ESL of 600 mg/kg.
- A waste profile composite sample (LB1-2-3-4-SGS) collected from drummed soil cuttings from LB1-SGS, LB2-SGS, LB3-SGS, and LB4-SGS does not contain VOCs or TPH. The sample contains metals at concentrations that do not exceed residential ESLs or RSLs.

### Groundwater Results

TPH and VOCs were not detected in any of the analyzed groundwater samples.

Metals were detected in all three groundwater samples. The following metals were present in groundwater samples at concentrations that exceed residential ESLs:

- Copper in samples LB1-SGS-GW (150 µg/L) and LB-2-Shallow-GW (120 µg/L) exceeds the residential groundwater ESL of 3.1 µg/L.
- Lead in sample LB-2-Shallow-GW (140 µg/L) exceeds the residential groundwater ESL of 2.5 µg/L.
- Zinc in sample LB-2-Shallow-GW (140 µg/L) exceeds the residential groundwater ESL of 81 µg/L.

Sample LB1-SGS-GW was also analyzed for general chemistry parameters for dewatering purposes. The following table summarizes general chemistry analytical data for LB1-SGS-GW:

Analyte	Result	Units
Salinity	< 2.0	parts per trillion (ppt)
Total Hardness	<b>2,500</b>	mg/L
pH	<b>7.2</b>	pH units
Total Dissolved Solids	<b>610</b>	mg/L
Fluoride	<b>0.544</b>	mg/L
Chloride	<b>74.5</b>	mg/L
Sulfate as SO <sub>4</sub>	<b>197</b>	mg/L
Bromide	< 1.25	mg/L
Nitrate as NO <sub>2</sub>	< 0.500	mg/L
Nitrate as NO <sub>3</sub>	<b>10.2</b>	mg/L
Phosphate, Total as Orthophosphate	< 0.500	mg/L

### Soil Vapor Results

VOCs and TPH as gasoline were not detected in any of the analyzed soil vapor samples at levels above residential ESLs or California Human Health Screening Levels (CHHSLs; California Environmental Protection Agency, January 2005). Methane was detected in samples LB1-SGS-5, 10 purge volume (PV) (11 parts per million by volume [ppmv]) and LB4-SGS-5, 1PV (11 ppmv).

Pressure measurements recorded at each of the four soil vapor probe locations are as follows:

Soil Vapor Probe	Pressure	Units
LB1-SGS-5	0	inches water column
LB2-SGS-5	-0.27	inches water column
LB3-SGS-5	0	inches water column
LB4-SGS-5	0	inches water column

## WASTE MANAGEMENT

Six 55-gallon drums of soil were generated during drilling on 9-10 June 2014. The labeled drums are temporarily stored at the Property, pending completion of waste disposal by Belshire Environmental Services Inc., a waste management service company located in Foothill Ranch, California. A copy of the waste bill-of-lading will be provided when received from Belshire.

## CONCLUSIONS

Laboratory analytical results indicate that limited portions of Property soil contain concentrations of TPH and metals that exceed residential soil ESLs. Lead concentration in soil in the northwestern portion of the Property exceeds the lead STLC for classification as California non-RCRA hazardous waste. The approximate depth of lead-impacted soil is within the upper 10 feet. The approximate lateral extent of lead-impacted soil is delineated to the southeast by borings LB3-SGS and LB-3, which does not have ESL exceedances. Soil and rock below 20 feet bgs does not appear to contain elevated concentrations of TPH and metals.

Groundwater is present in a perched zone located approximately 14.5 to 19 feet bgs beneath the Property. Groundwater analytical results revealed elevated levels of metals in two samples. Elevated metals concentrations in groundwater may be due to submittal of unfiltered samples to the lab.

Soil vapor analytical results did not identify any exceedances for VOCs or TPH. Low levels of methane (11 ppmv) were detected in two shallow (5 feet bgs) soil vapor samples at the Property.

Based on the above conclusions, Langan recommends the following measures:

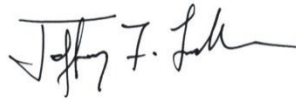
- A Soil Management Plan (SMP) should be prepared for the Property. The SMP should address the delineation of the vertical and lateral extent of identified TPH and metals impacts in Property soil. Soil management procedures will be described so that hazardous soil can be separated from non-hazardous soil during excavation tasks. Also, contingency procedures will be presented in the event that unanticipated hazardous materials issues such as USTs are identified during excavation.
- Soil management procedures outlined in the SMP should be followed during proposed Property excavation and development to properly manage the various classes of soil, and to minimize risk to workers and the public during construction.

Please contact us if you have any questions or comments.

Sincerely,  
**Langan Engineering and Environmental Services, Inc.**



Keith F. Gilbert, PG 7261  
Senior Project Manager



Jeffrey F. Ludlow, PG 6369  
Principal/Vice President

Attachments: Table 1: Soil Total Petroleum Hydrocarbons Results  
Table 2: Soil Metals Results  
Table 3: Groundwater Metals Results  
Table 4: Groundwater General Chemistry Results  
Table 5: Soil Vapor Analytical Results

Figure 1: Property Vicinity Map  
Figure 2: Site Plan  
Figure 3: Locations of Identified Exceedances

Attachment A: Boring Logs  
Attachment B: Laboratory Analytical Results

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## **TABLES**

**Table 1: Soil Total Petroleum Hydrocarbons Results**  
**Limited Phase II ESA**  
**South Hill and West 4th Street**  
**Los Angeles, California**  
**Project: 700036601**

Sample ID	Sample Depth (feet bgs)	Sample Date	C13-C28 (DRO)	C29-C40 (MORO)
			mg/kg	mg/kg
LB-1-R-1-DUP	5	5/21/2014	< 10	<b>100</b>
LB-1-R-3-DUP	15	5/21/2014	<b>1,500</b>	<b>200</b>
LB-1-R-4-DUP	20	5/21/2014	<b>29</b>	< 10
LB2-SGS-5'-5.5'	5	6/9/2014	<b>78</b>	<b>1,800</b>
LB4-SGS-5.5'-6'	5.5	6/10/2014	< 10	<b>17</b>
<b>Residential ESLs</b>				
Shallow Soil (<3 m ) Groundwater is not a current or potential drinking water source			100	100
Deep Soil (>3 m) Groundwater is not a current or potential drinking water resource			110	500

Notes:

**Bold values** indicate analyte detection.

Highlighted values exceed ESLs.

DRO - Diesel Range Organics

MORO - Motor Oil Range Organics

Shallow Soil - < 3m (9.84 feet) below ground surface.

Deep Soil - > 3m (9.84 feet) below ground surface.

ESL - Environmental screening level (San Francisco Regional Water Quality Control Board, December 2013).

**Table 2: Soil Metals Results**  
**Limited Phase II ESA**  
**South Hill and West 4th Street**  
**Los Angeles, California**  
**Project: 700036601**

Sample ID	Sample Date	Sample Depth (feet bgs)	EPA 6010B & 7470/7471														
			Arsenic mg/kg	Barium mg/kg	Barium (STLC) mg/L	Beryllium mg/kg	Cadmium mg/kg	Chromium mg/kg	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Lead (STLC) mg/L	Lead (TCLP) mg/L	Mercury mg/kg	Nickel mg/kg	Vanadium mg/kg	Zinc mg/kg
LB-1-R-1-DUP	5/21/2014	5'	< 5.0	420	NA	< 1.0	< 2.0	14	3.9	22	200	24	< 0.10	0.50	5.6	18	200
LB-1-R-2-DUP	5/21/2014	10'	< 5.0	59	NA	< 1.0	< 2.0	3.3	2.9	8.0	< 3.0	NA	NA	< 0.10	3.0	9.5	19
LB-1-R-3-DUP	5/21/2014	15'	< 5.0	78	NA	< 1.0	< 2.0	5.1	5.0	11	< 3.0	NA	NA	< 0.10	7.8	16	26
LB-1-R-4-DUP	5/21/2014	20'	< 5.0	68	NA	< 1.0	< 2.0	25	3.9	9.1	< 3.0	NA	NA	< 0.10	4.1	9.3	19
LB-1-R-5-DUP	5/21/2014	25'	< 5.0	71	NA	< 1.0	< 2.0	19	12	29	7.8	NA	NA	< 0.10	19	35	68
LB-1-R-6-DUP	5/21/2014	30'	< 5.0	65	NA	< 1.0	< 2.0	19	9.4	26	5.8	NA	NA	< 0.10	20	35	61
LB-2-R-1-DUP	5/22/2014	5'	< 5.0	310	NA	< 1.0	< 2.0	11	3.9	13	510	17	0.31	0.21	3.8	15	450
LB-2-R-2-DUP	5/22/2014	10'	< 5.0	64	NA	< 1.0	< 2.0	4.9	3.5	18	7.3	NA	NA	< 0.10	4.5	12	27
LB-2-R-3-DUP	5/22/2014	15'	< 5.0	25	NA	< 1.0	< 2.0	2.8	2.2	7.8	< 3.0	NA	NA	< 0.10	3.1	8.8	14
LB-2-R-4-DUP	5/22/2014	20'	15	160	NA	< 1.0	< 2.0	18	8.8	26	5.6	NA	NA	< 0.10	18	47	56
LB-2-R-5-DUP	5/22/2014	25'	< 5.0	88	NA	< 1.0	< 2.0	21	12	30	6.6	NA	NA	< 0.10	19	43	74
LB-2-R-6-DUP	5/22/2014	30'	< 5.0	69	NA	< 1.0	< 2.0	17	8.9	21	5.2	NA	NA	< 0.10	17	31	52
LB-3-R-1-DUP	5/21/2014	5'	< 5.0	130	NA	< 1.0	< 2.0	17	10	16	5.0	NA	NA	< 0.10	13	43	46
LB-3-R-2-DUP	5/21/2014	10'	< 5.0	84	NA	< 1.0	< 2.0	8.0	5.6	8.0	< 3.0	NA	NA	< 0.10	6.4	21	27
LB-3-R-4-DUP	5/21/2014	20'	< 5.0	78	NA	< 1.0	< 2.0	22	13	52	6.4	NA	NA	< 0.10	25	39	76
LB-3-R-5-DUP	5/21/2014	25'	< 5.0	120	NA	< 1.0	< 2.0	21	11	30	5.5	NA	NA	< 0.10	24	41	78
LB-3-R-6-DUP	5/21/2014	30'	< 5.0	74	NA	< 1.0	< 2.0	19	8.9	19	4.3	NA	NA	< 0.10	18	32	56
LB-4-R-1-DUP	5/23/2014	5'	< 5.0	72	NA	< 1.0	< 2.0	8.1	4.3	42	5.8	NA	NA	< 0.10	6.5	19	38
LB-4-R-2-DUP	5/23/2014	10'	< 5.0	100	NA	< 1.0	< 2.0	17	9.4	21	5.8	NA	NA	< 0.10	12	35	62
LB-4-R-3-DUP	5/23/2014	15'	< 5.0	110	NA	< 1.0	< 2.0	18	10	17	6.0	NA	NA	< 0.10	18	36	62
LB-4-R-4-DUP	5/23/2014	20'	< 5.0	100	NA	< 1.0	< 2.0	27	14	34	8.3	NA	NA	< 0.10	24	44	79
LB-4-R-5-DUP	5/23/2014	25'	< 5.0	93	NA	< 1.0	< 2.0	28	13	31	6.9	NA	NA	< 0.10	23	43	78
LB-4-R-6-DUP	5/23/2014	30'	< 5.0	120	NA	< 1.0	< 2.0	55	15	42	7.9	NA	NA	< 0.10	31	74	37
LB1-SGS-5.5'-6'	6/9/2014	5.5'	< 5.0	72	NA	< 1.0	< 2.0	< 2.0	< 2.0	20	8.2	NA	NA	< 0.10	< 2.0	8	19
LB1-SGS-10.5'-11'	6/9/2014	10.5'	< 5.0	110	NA	< 1.0	< 2.0	12	7.9	26	< 3.0	NA	NA	< 0.10	7.6	26	47
LB1-SGS-15'-15.5'	6/9/2014	15'	< 5.0	250	NA	< 1.0	< 2.0	9.2	3.6	15	77	4.8	NA	0.14	4.5	16	51
LB1-SGS-20.5'-21'	6/9/2014	20.5'	< 5.0	69	NA	< 1.0	< 2.0	6.8	3.5	37	< 3.0	NA	NA	< 0.10	2.8	13	45
LB1-SGS-25'-25.5'	6/9/2014	25'	< 5.0	71	NA	< 1.0	< 2.0	16	7.0	16	3.2	NA	NA	< 0.10	13	26	42
LB1-SGS-30.5'-31'	6/9/2014	30.5'	< 5.0	61	NA	< 1.0	< 2.0	19	8.0	32	3	NA	NA	< 0.10	16	33	60
LB2-SGS-5'-5.5'	6/9/2014	5'	< 5.0	800	NA	< 1.0	< 2.0	19	3.1	14	1,400	14	0.49	0.19	4.3	14	1,100
LB2-SGS-10.5'-11'	6/9/2014	10.5'	< 5.0	93	NA	< 1.0	< 2.0	15	6.3	64	4	NA	NA	< 0.10	6.0	27	77
LB2-SGS-15'-15.5'	6/9/2014	15'	< 5.0	110	NA	< 1.0	< 2.0	18	7.0	67	32	NA	NA	< 0.10	9.2	25	120
LB2-SGS-20'-20.5'	6/9/2014	20'	< 5.0	43	NA	< 1.0	< 2.0	3.9	3.7	15	< 3.0	NA	NA	< 0.10	4.4	13	28
LB2-SGS-25.5'-26'	6/9/2014	25.5'	< 5.0	68	NA	< 1.0	< 2.0	21	11	27	5.6	NA	NA	0.10	18	40	61
LB2-SGS-30'-30.5'	6/9/2014	30'	< 5.0	66	NA	< 1.0	< 2.0	20	8.7	59	4.7	NA	NA	< 0.10	17	35	72
LB3-SGS-5.5'-6'	6/9/2014	5.5'	< 5.0	110	NA	< 1.0	< 2.0	17	11	35	34	NA	NA	< 0.10	15	38	74
LB3-SGS-10.5'-11'	6/9/2014	10.5'	< 5.0	130	NA	< 1.0	< 2.0	18	12	14	4.1	NA	NA	0.10	13	50	54
LB3-SGS-15'-15.5'	6/9/2014	15'	< 5.0	32	NA	< 1.0	< 2.0	4.2	3.3	14	< 3.0	NA	NA	< 0.10	4.2	13	27
LB3-SGS-20'-20.5'	6/9/2014	20'	< 5.0	270	NA	< 1.0	< 2.0	20	7.9	36	6.3	NA	NA	< 0.10	13	38	58
LB3-SGS-25.5'-30'	6/9/2014	25.5'	< 5.0	180	NA	< 1.0	< 2.0	22	10	25	4.7	NA	NA	< 0.10	20	41	69
LB3-SGS-30'-30.5'	6/9/2014	30'	< 5.0	69	NA	< 1.0	< 2.0	18	8.3	19	< 3.0	NA	NA	< 0.10	16	31	51
LB4-SGS-5.5'-6'	6/10/2014	5.5'	< 5.0	1500	0.41	< 1.0	< 2.0	3.2	< 2.0	4	< 3.0	NA	NA	< 0.10	2	22	12
LB4-SGS-10.5'-11'	6/10/2014	10.5'	< 5.0	95	NA	< 1.0	< 2.0	4.1	6.9	11	3.1	NA	NA	< 0.10	4.1	25	59
LB4-SGS-15.5'-16'	6/10/2014	15.5'	< 5.0	81	NA	< 1.0	< 2.0	7.9	5.7	71	3.1	NA	NA	< 0.10	7.1	20	64
LB4-SGS-20.5'-21'	6/10/2014	20.5'	< 5.0	110	NA	< 1.0	< 2.0	19	13	22	5.8	NA	NA	< 0.10	18	43	68
LB4-SGS-25.5'-26'	6/10/2014	25.5'	< 5.0	93	NA	< 1.0	< 2.0	17	8.7	14	3.6	NA	NA	< 0.10	14	33	51
LB4-SGS-30.5'-31'	6/10/2014	30.5'	< 5.0	100	NA	1.1	< 2.0	26	13	27	7.1	NA	NA	< 0.10	21	43	73
LB1-2-3-4-SGS	6/27/2014	Composite*	< 5.0	160	NA	< 1.0	< 2.0	7.8	5.0	12	5.7	NA	NA	< 0.10	5.6	20	37
Shallow Soil (< 3m) Residential ESLs			0.39	750	NA	4.0	12	1,000	23	230	80	NA	NA	6.7	150	200	600
Deep Soil (> 3m) Residential ESLs			10.0	2,500	NA	180	110	2,500	49	2,500	320	NA	NA	27	2,500	1,500	2,500
Residential Soil RSLs			0.61	15,000	NA	16	NA	NA	23	3,100	400	NA	NA	1.0	NA	390	23,000
STLC			NA	NA	100	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA	NA
TCLP			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA

**Table 2: Soil Metals Results  
Limited Phase II ESA  
South Hill and West 4th Street  
Los Angeles, California  
Project: 700036601**

Notes:

**Bold values** indicate analyte detection.

Only detected metals are presented.

Highlighted values exceed ESLs or RSLs.

ESL - Environmental screening level (San Francisco Regional Water Quality Control Board, December 2013).

RSL - Regional screening level (Environmental Protection Agency, May 2013).

STLC - Soluble Threshold Limit Concentration (California Department of Toxic Substances Control, 2007).

TCLP - Toxicity Characteristic Leaching Procedure (Resource Conservation and Recovery Act, 40 CFR § 261.24, July 20, 2006).

NA - Not available/not analyzed.

ND - Not detected.

\*Composite waste profile sample collected from drummed soil cuttings from LB1-SGS, LB2-SGS, LB3-SGS, and LB4-SGS.

**Table 3: Groundwater Metals Results**  
**Limited Phase II ESA**  
**South Hill and West 4th Street**  
**Los Angeles, California**  
**Project: 700036601**

Sample ID	Sample Date	Metals (EPA 6010B)			
		Barium µg/L	Copper µg/L	Lead µg/L	Zinc µg/L
LB1-SGS-GW	6/9/2014	<b>590</b>	<b>150</b>	< 50	< 50
LB2-SGS-Shallow-GW	6/10/2014	<b>260</b>	<b>120</b>	<b>140</b>	<b>140</b>
LB2-SGS-Deep-GW	6/10/2014	<b>78</b>	< 50	< 50	< 50
Groundwater ESLs		1,000	3.1	2.5	81

Notes:

**Bold values** indicate analyte detection.

Only detected metals are presented.

Highlighted values exceed ESLs.

ESL - Environmental screening level (San Francisco Regional Water Quality Control Board, December 2013).

**Table 4: Groundwater General Chemistry Results**  
**Limited Phase II ESA**  
**South Hill and West 4th Street**  
**Los Angeles, California**  
**Project: 700036601**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>
Salinity	< 2.0	parts per trillion (ppt)
Total Hardness	<b>2,500</b>	mg/L
pH	<b>7.2</b>	pH units
Total Dissolved Solids	<b>610</b>	mg/L
Fluoride	<b>0.544</b>	mg/L
Chloride	<b>74.5</b>	mg/L
Sulfate as SO <sub>4</sub>	<b>197</b>	mg/L
Bromide	< 1.25	mg/L

Notes:

**Bold values** indicate analyte detection.

**Table 5: Soil Vapor Analytical Results**  
**Limited Phase II ESA**  
**South Hill Street and West 4th Street**  
**Los Angeles, California**  
**Project: 700036601**

Sample ID	Sample Date	Benzene	Chloroform	Methane	Tetrachloroethene	m,p-Xylene	1,1-Difluoroethane (LCC)	1,1,1,2-Tetrafluoroethane (LCC)
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppmv	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
LB1-SGS-5, 1PV, P7349cc	6/12/2014	< 20	< 20	< 10	< 20	<b>110</b>	< 100	< 100
LB1-SGS-5, 3PV, P22048cc	6/12/2014	< 20	< 20	< 10	< 20	< 100	<b>240</b>	< 100
LB1-SGS-5, 10 PV, P73494cc	6/12/2014	< 20	< 20	<b>11</b>	< 20	< 100	<b>6,600</b>	<b>2,300</b>
LB2-SGS-5, P7349cc	6/12/2014	< 20	< 20	< 10	<b>30</b>	<b>100</b>	<b>110</b>	< 100
LB2-SGS-5 Rep, P7499cc	6/12/2014	< 20	< 20	< 10	<b>20</b>	< 100	< 100	< 100
LB3-SGS-5, P7349cc	6/12/2014	< 20	< 20	< 10	<b>80</b>	< 100	< 100	< 100
LB4-SGS-5, P7349cc	6/12/2014	<b>20</b>	<b>140</b>	<b>11</b>	< 20	<b>170</b>	< 100	< 100
Shallow Soil Gas ESLs for Vapor Intrusion		42	230	NA	210	52,000		
Shallow Soil Gas Residential CHHSLs		36	NA	NA	180	63,600		

Notes:

**Bold values** indicate analyte detection.

CHHSL - California Human Health Screening Level (California Environmental Protection Agency, January 2005).

ESL - Environmental screening level (San Francisco Regional Water Quality Control Board, December 2013).

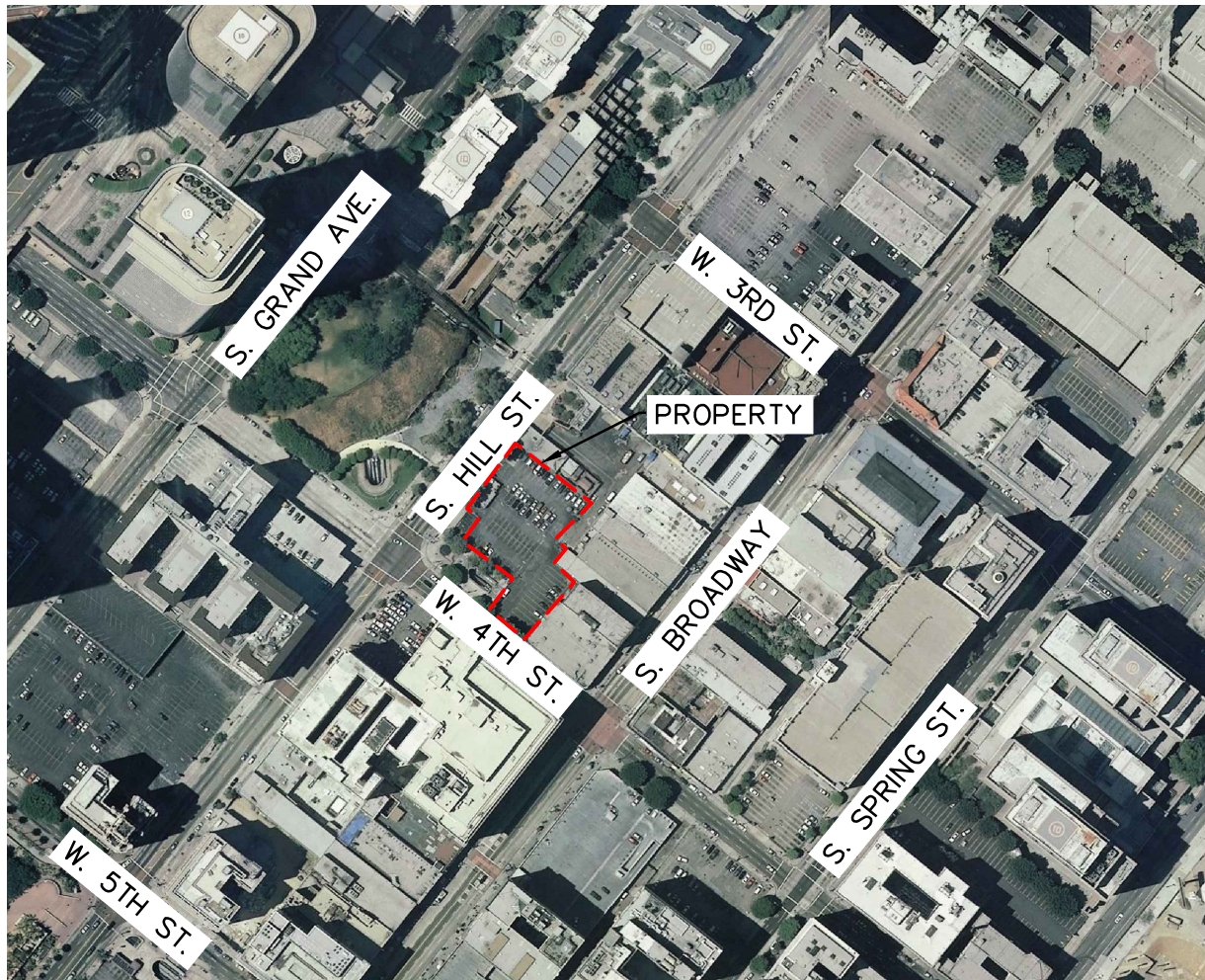
Red highlight indicates ESL or CHHSL exceedance.

NA - Not analyzed / Not available.

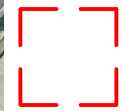
LCC - Leak check compound.

## FIGURES





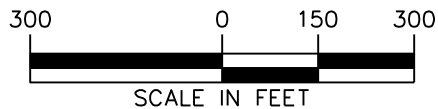
**LEGEND:**



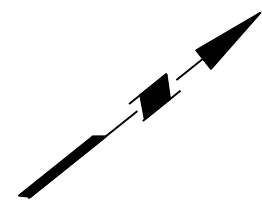
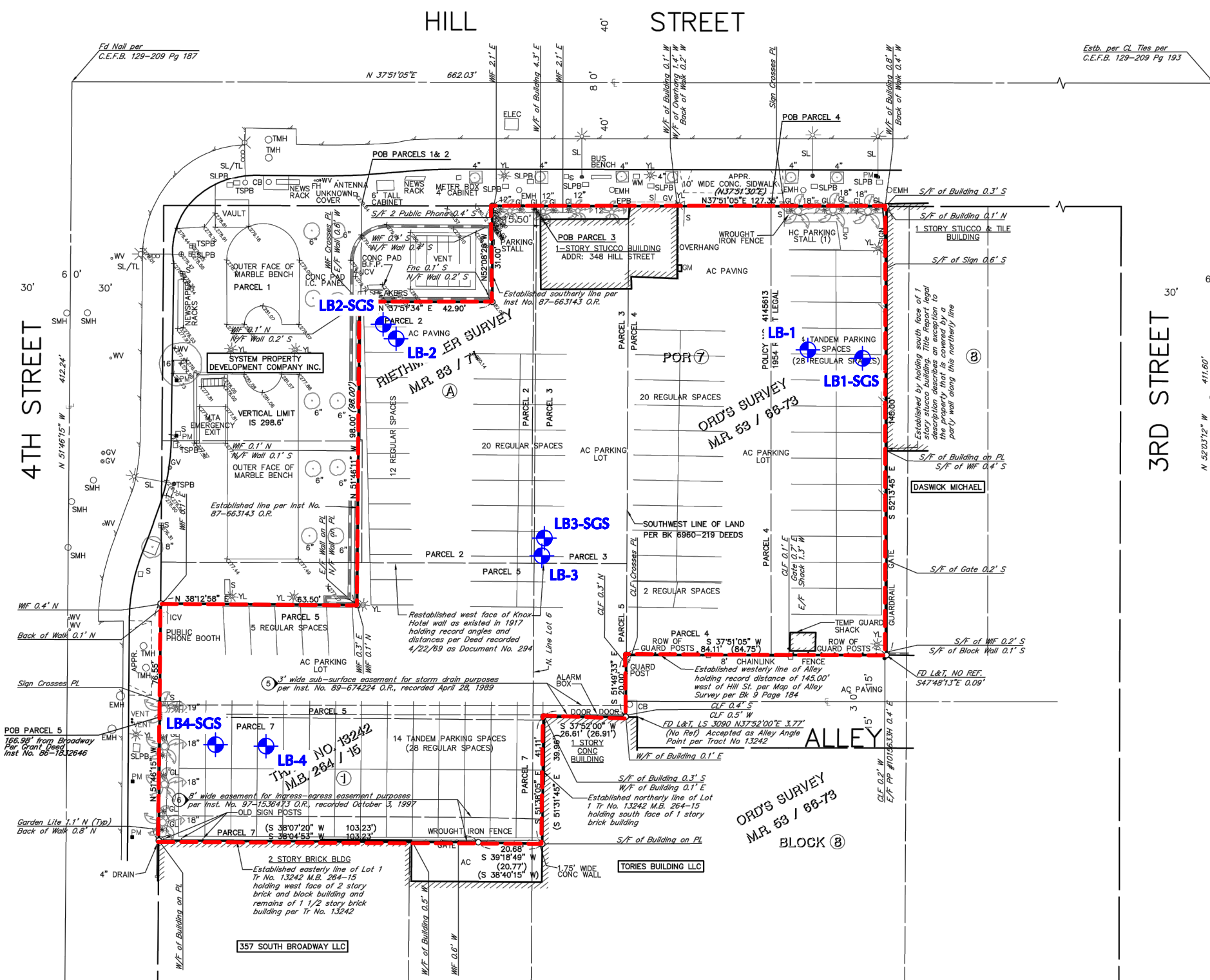
APPROXIMATE SITE LOCATION

**NOTES:**

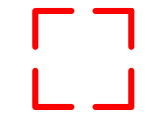
1. BACKGROUND IMAGE TAKEN FROM DATADOORS DESKTOP 2014 ON 2 JUNE 2014.
2. SITE LIMITS ARE APPROXIMATE.



 32 Executive Park, Suite 130 Irvine, CA 92614 T: 949.255.8640 F: 949.255.8641 www.langan.com Langan Engineering & Environmental Services, Inc.	Project	Figure Title	Project No.	Figure No.
	4TH AND HILL SITE	PROPERTY VICINITY MAP	700036601	1
	LOS ANGELES		Date	
	LOS ANGELES COUNTY CALIFORNIA		2 JUNE 2014	
			Scale	
			1" = 300'	
			Drawn By	
			SAC	



**LEGEND:**



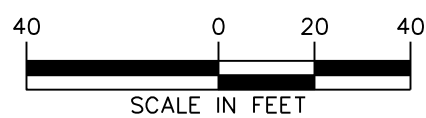
APPROXIMATE SITE LIMITS



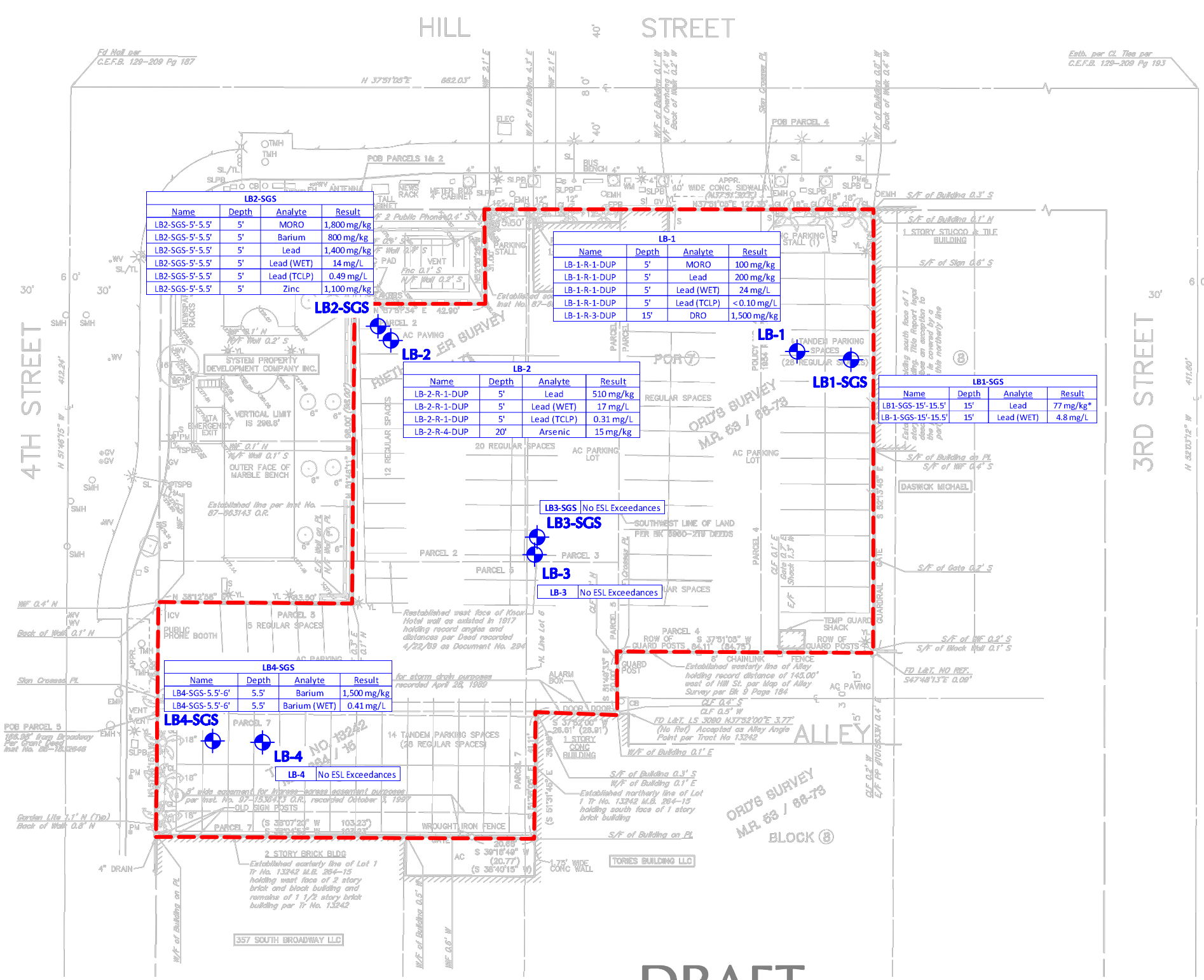
APPROXIMATE LOCATION OF BORING

**NOTES:**

1. BACKGROUND DRAWING OBTAINED FROM "ALTA'ASCM LAND TITLE SURVEY FOR: SYSTEM PROPERTY DEVELOPMENT, 4TH AND HILL STREET" BY PSOMAS DATED 22 DECEMBER 2005.
2. SITE LIMITS AND BORING LOCATIONS ARE APPROXIMATE.



 32 Executive Park, Suite 130 Irvine, CA 92614 T: 949.255.8640 F: 949.255.8641 www.langan.com Langan Engineering & Environmental Services, Inc.	Project	Figure Title	Project No.	Figure No.
	4TH AND HILL SITE	SITE PLAN	700036601	
			Date	2
			13 JUNE 2014	
			Scale 1" = 40'	
			Drawn By	
			SAC	



LB2-SGS			
Name	Depth	Analyte	Result
LB2-SGS-5'-5.5'	5'	MORO	1,800 mg/kg
LB2-SGS-5'-5.5'	5'	Barium	800 mg/kg
LB2-SGS-5'-5.5'	5'	Lead	1,400 mg/kg
LB2-SGS-5'-5.5'	5'	Lead (WET)	14 mg/L
LB2-SGS-5'-5.5'	5'	Lead (TCLP)	0.49 mg/L
LB2-SGS-5'-5.5'	5'	Zinc	1,100 mg/kg

LB-1			
Name	Depth	Analyte	Result
LB-1-R-1-DUP	5'	MORO	100 mg/kg
LB-1-R-1-DUP	5'	Lead	200 mg/kg
LB-1-R-1-DUP	5'	Lead (WET)	24 mg/L
LB-1-R-1-DUP	5'	Lead (TCLP)	<0.10 mg/L
LB-1-R-3-DUP	15'	DRO	1,500 mg/kg

LB-2			
Name	Depth	Analyte	Result
LB-2-R-1-DUP	5'	Lead	510 mg/kg
LB-2-R-1-DUP	5'	Lead (WET)	17 mg/L
LB-2-R-1-DUP	5'	Lead (TCLP)	0.31 mg/L
LB-2-R-4-DUP	20'	Arsenic	15 mg/kg

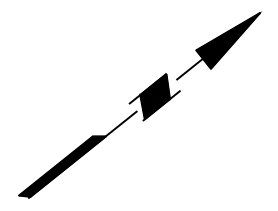
LB1-SGS			
Name	Depth	Analyte	Result
LB1-SGS-15'-15.5'	15'	Lead	77 mg/kg*
LB1-SGS-15'-15.5'	15'	Lead (WET)	4.8 mg/L

LB4-SGS			
Name	Depth	Analyte	Result
LB4-SGS-5.5'-6'	5.5'	Barium	1,500 mg/kg
LB4-SGS-5.5'-6'	5.5'	Barium (WET)	0.41 mg/L

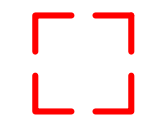
LB3-SGS No ESL Exceedances  
LB3-SGS

LB-3 No ESL Exceedances  
LB-3

LB-4 No ESL Exceedances  
LB-4



**LEGEND:**



APPROXIMATE SITE LIMITS



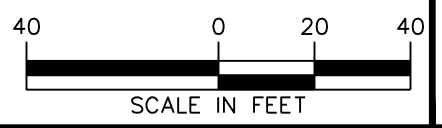
APPROXIMATE LOCATION OF BORING

- ESL ENVIRONMENTAL SCREENING LEVEL (SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD, DECEMBER 2013).
- DRO DIESEL-RANGE PETROLEUM HYDROCARBONS
- MORO MOTOR-OIL RANGE PETROLEUM HYDROCARBONS
- NA NOT APPLICABLE
- TCLP TOXICITY CHARACTERISTIC LEACHING PROCEDURE
- WET WASTE EXTRACTION TEST

**NOTES:**

1. BACKGROUND DRAWING OBTAINED FROM "ALTA/ASCM LAND TITLE SURVEY FOR: SYSTEM PROPERTY DEVELOPMENT, 4TH AND HILL STREET" BY PSOMAS DATED 22 DECEMBER 2005.
  2. SITE LIMITS AND BORING LOCATIONS ARE APPROXIMATE.
- \* LEAD RESULT EXCEEDS 10 TIMES THE SOUBLE THRESHOLD LIMIT CONCENTRATION (STLC) VALUE OF 5 mg/L FOR LEAD, BUT DOES NOT EXCEED THE RESIDENTIAL DEEP SOIL ESL OF 320 mg/kg.

**DRAFT**



<p><b>LANGAN</b></p> <p>32 Executive Park, Suite 130 Irvine, CA 92614</p> <p>T: 949.255.8640 F: 949.255.8641 www.langan.com</p> <p>Langon Engineering &amp; Environmental Services, Inc.</p>	<p>Project</p> <p><b>4TH AND HILL SITE</b></p> <p>LOS ANGELES LOS ANGELES COUNTY CALIFORNIA</p>	Figure Title	Project No.	Figure No.
		<p><b>LOCATIONS OF IDENTIFIED EXCEEDANCES</b></p>	700036601	3
			Date	
			13 JUNE 2014	
			Scale	
			1" = 40'	
			Drawn By	
			SAC	

**ATTACHMENT A  
BORING LOGS**

# LANGAN

Project 4th and Hill Phase II ESA				Project No. 700036602				
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)				
Drilling Company 2R Drilling				Date Started 5/21/14		Date Finished 5/21/14		
Drilling Equipment CME 75 Hollow-Stem Auger Drill Rig				Completion Depth 31.5 ft		Rock Depth		
Size and Type of Bit 8-inch O.D. Hollow Stem Auger Bit				Number of Samples		Disturbed 0	Undisturbed 6	Core N/A
Casing Diameter (in) N/A		Casing Depth (ft) N/A		Water Level (ft.) First 19		Completion N/A	24 HR. N/A	
Casing Hammer N/A		Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman				
Sampler Split Spoon				Inspecting Engineer				
Sampler Hammer Auto Hammer		Weight (lbs) 140 lb	Drop (in) 30"	Rachel Prohoroff				

I:\LANGAN.COM\DATA\IR\DATA\6700036601\ENGINEERING DATA\ENVIRONMENTAL\GINTLOGS\HILL AND W 4TH BORINGS.GPJ...6/11/2014 3:49:31 PM...Report: Log - LANGAN ...Template: TEMPLATE.GDT

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist	BL/Join	
	280.0	6 inches asphalt	0						
	279.5	Loose light brown to reddish brown SAND (SW), dry, fine to coarse grained, with gravel, angular to subrounded, fine to coarse.	1						
			2						
			3						
			4						
	275.0	Stiff brown CLAY (CL), moist, with sand, fine to medium grained, and angular red brick fragments up to 0.5" diameter. Stiff brown CLAY (CL), moist.	5	R-1	SS	18	7	19	0.0
			6					30	
			7						
			8						
			9						
	270.0	Loose brown SAND (SW), moist, fine to coarse grained, with gravel, fine to 1.5" diameter, subrounded, and part of a granite cobble >3" diameter.	10	R-2	SS	14.5	40	50	0.0
			11					50	
			12						
			13						
			14						
	264.5	Loose brown SAND (SW), fine to coarse grained, moist, with gravel, subangular, up to 0.5" diameter Loose gray GRAVEL (GP), moist, up to 1.5" diameter, subrounded, with fine to medium grained sand, with heavy staining, and strong hydrocarbon odor.	15	R-3	SS	10	50	90	1.8
			16						43.9
			17						
			18						
			19						
	260.0		20						

Initial groundwater around 19-20 feet bgs

# LANGAN

Log of Boring

**LB-1**

Sheet

2

of

2

Project 4th and Hill Phase II ESA	Project No. 700036602
Location South Hill Street and West 4th Street	Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	
[Symbol: Dotted pattern]	255.0	Loose brown SAND (SW), wet, medium to coarse grained, with fines, with angular fine gravel up to 0.25" diameter.	20	R-4	SS	12	61	1.0
			21				71	1.0
[Symbol: Horizontal lines]	255.0	Very stiff gray silty CLAYSTONE, moist, with trace fine grained sand.	25	R-5	SS	18	13	0.5
			26				29	0.7
			27				49	
[Symbol: Horizontal lines]	248.5	Very stiff gray silty CLAYSTONE, moist.	30	R-6	SS	18	13	0.4
			31				50	0.6
			31				53	
		Total Depth of Boring: 81.5 feet bgs. Groundwater encountered at 26.1 feet bgs. Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Cuttings from 30-81.5 feet used to backfill boring; excess cuttings placed in DOT-approved drums and taken off site for disposal. Boring capped with 6-inches Cold Patch Mix Asphalt upon completion of backfill. (Source: Leighton and Associates Draft Geotechnical Boring Log LB-1).	32					
			33					
			34					
			35					
			36					
			37					
			38					
			39					
			40					
			41					
			42					
			43					
			44					
			45					

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Project 4th and Hill Phase II ESA				Project No. 700036602				
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)				
Drilling Company 2R Drilling				Date Started 5/22/14		Date Finished 5/22/14		
Drilling Equipment CME 75 Hollow-Stem Auger				Completion Depth 31.5 ft		Rock Depth		
Size and Type of Bit 8-inch O.D. Hollow Stem Auger Bit				Number of Samples		Disturbed 0	Undisturbed 6	Core N/A
Casing Diameter (in) N/A		Casing Depth (ft) N/A		Water Level (ft.) First 16.3		Completion N/A	24 HR. N/A	
Casing Hammer N/A		Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman				
Sampler Split Spoon				Inspecting Engineer				
Sampler Hammer Auto Hammer		Weight (lbs) 140 lb	Drop (in) 30"	Rachel Prohoroff				

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MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist	BL/Join	
	280.0		0						
	279.5	6 inches asphalt	1						
		Soft brown CLAY (CL), moist, with sand, fine to coarse grained.	2						
			3						
			4						
	275.0	Loose, light tan SAND (SW), moist, fine to coarse grained, with angular gravel up to 1.25" diameter.	5	R-1	SS	18	5	3	0.0
	274.5	Soft dark brown sandy CLAY (CL), moist, with fine to coarse grained sand, with subrounded gravel up to 0.5" diameter, intermixed with loose, light tan colored, fine to coarse grained sand.	6						
			7						
			8						
			9						
	270.0	Loose brown SAND (SW), moist, medium to coarse grained, with subangular gravel up to 0.5" diameter, granitic clasts > 2" diameter, and some clay.	10	R-2	SS	18	44	38	0.0
			11					46	
			12						
			13						
			14						
		Loose brown SAND (SW), wet, fine to coarse grained, with few fines, with subrounded granitic gravel up to 2" diameter.	15	R-3	SS	17.5	32	42	0.0
			16					50	
			17						Groundwater at 16.25 feet
			18						
			19						
	260.0		20						

Project 4th and Hill Phase II ESA	Project No. 700036602
Location South Hill Street and West 4th Street	Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	
	259.5	Firm brown CLAY (CL), moist, with greenish brown and rust color mottling.	20	R-4		9	0.0	
		Hard gray silty CLAYSTONE, moist, with trace limestone fragments up to 0.5".	21		SS	18	17	
			22				23	
			23					
			24					
			25					
		Hard dark gray silty CLAYSTONE, moist, with few shells up to 0.25" across.	25	R-5		19	0.0	
			26		SS	18	37	
			27				50	
			28					
			29					
			30					
		Hard dark gray silty CLAYSTONE, moist.	30	R-6		24	0.0	
			31		SS	16	46	
			32				50	
			33					
			34					
			35					
	248.5	Total Depth of Boring: 81.5 feet bgs Groundwater encountered at 16.2 feet bgs Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Monitoring Wells MW-1a/1b installed with Traffic-Rated Well Cover in parking stall. Slotted screen for MW-1a at 35-25 feet bgs; for MW-1b at 20-10 feet bgs. Annulus filled with sand, cuttings, and bentonite plugs between screened intervals. Screened interval annulus filled with No. 3 Monterey Sand. Excess cuttings disposed of in DOT-approved drums and taken off site. (Source: Leighton and Associates Draft Geotechnical Boring Log LB-2/MW-1).	32					
			33					
			34					
			35					
			36					
			37					
			38					
			39					
			40					
			41					
		42						
		43						
		44						
		45						

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Log of Boring

**LB-3**

Sheet

2

of

2

Project 4th and Hill Phase II ESA	Project No. 700036602
Location South Hill Street and West 4th Street	Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)		
				Number	Type	Recov. (in)	Penetr. resist. BL/6in		PID Reading (ppm)	
[Symbol]	20	Hard grayish brown silty CLAYSTONE, moist, with brown mottling.	20	R-4	SS	18	9	0.4		
										15
										19
[Symbol]	25	Hard gray silty CLAYSTONE, moist.	25	R-5	SS	18	20	0.4		
										34
										50
[Symbol]	30	Hard gray silty CLAYSTONE, moist.	30	R-6	SS	17	24	0.7		
										40
										50
	248.5	Total depth of Boring: 51.5 feet bgs Groundwater encountered at 19.5 feet bgs Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Cuttings from 30-51.5 feet used to backfill boring; excess cuttings placed in DOT-approved drums and taken off site for disposal. Boring capped with 6-inches Cold Patch Mix Asphalt upon completion of backfill. (Source: Leighton and Associates Draft Geotechnical Boring Log LB-3).								
			32							
			33							
			34							
			35							
			36							
			37							
			38							
			39							
			40							
			41							
			42							
			43							
			44							
			45							

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Project 4th and Hill Phase II ESA				Project No. 700036602				
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)				
Drilling Company 2R Drilling				Date Started 5/23/14		Date Finished 5/23/14		
Drilling Equipment CME 75 Hollow-Stem Auger				Completion Depth 31.5 ft		Rock Depth		
Size and Type of Bit 8-inch O.D. Hollow Stem Auger Bit				Number of Samples		Disturbed 0	Undisturbed 6	Core N/A
Casing Diameter (in) N/A		Casing Depth (ft) N/A		Water Level (ft.)		First ▽ N/A	Completion ▽ N/A	24 HR. ▽ N/A
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman		
Sampler Split Spoon				Inspecting Engineer				
Sampler Hammer Auto Hammer		Weight (lbs) 140 lb		Drop (in) 30"		Rachel Prohoroff		

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MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist	BL/6in		PID Reading (ppm)
	280.0		0							
	279.7	4" asphalt								No groundwater encountered.
		Loose, light brown to reddish brown SAND (SW), moist, fine to coarse grained, with clay, with subangular gravel up to 1.5" diameter.	1							
			2							
			3							
			4							
			5						0.0	
		Loose, reddish brown SAND (SW), moist, fine to medium grained, with clay, with gravel, subangular to subrounded, up to 0.5" diameter, and brick fragments, angular to subrounded, up to 2" diameter.	6	R-1	SS	18	5	4		
			7					7		
			8							
			9							
			10						0.0	
	269.5	Loose brown SAND (SW), moist, fine to coarse grained, with clay, intermixed with loose yellowish brown sand, moist, fine to coarse grained, with no fines.	11	R-2	SS	12	30	86		
		Dense well-graded GRAVEL (GW), moist, with sand, fine to coarse grained.	12							
			13							
			14							
	265.0	Hard reddish brown silty CLAYSTONE, stiff, moist, with rust color and greenish brown mottling.	15	R-3	SS	18	15	25	0.0	
		Hard gray silty CLAYSTONE, moist, with some rust color mottling.	16					34		
			17							
			18							
			19							
			20							

Project 4th and Hill Phase II ESA	Project No. 700036602
Location South Hill Street and West 4th Street	Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	
[Symbol: Dotted pattern]		Hard gray silty CLAYSTONE, moist, with trace shells up to 0.25" diameter.	20	R-4	SS	17	21	0.0
			21				32	
			22				50	
[Symbol: Dotted pattern]		Firm gray silty CLAYSTONE, moist.	25	R-5	SS	18	15	0.0
			26				36	
			27				50	
[Symbol: Dotted pattern]		Firm gray silty CLAYSTONE, moist, with trace shells up to 0.25" diameter.	30	R-6	SS	17	12	0.0
			31				43	
			32				50	
	248.5	Total Depth of Boring: 81.5 feet bgs No free groundwater encountered Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Cuttings from 30-81.5 feet used to backfill boring; excess cuttings placed in DOT-approved drums and taken off site for disposal. Boring capped with 6-inches Cold Patch Mix Asphalt upon completion of backfill. (Source: Leighton and Associates Draft Geotechnical Boring Log LB-4).	32					
			33					
			34					
			35					
			36					
			37					
			38					
			39					
			40					
			41					
			42					
			43					
			44					
			45					

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Log of Boring

**LB1-SGS**

Sheet

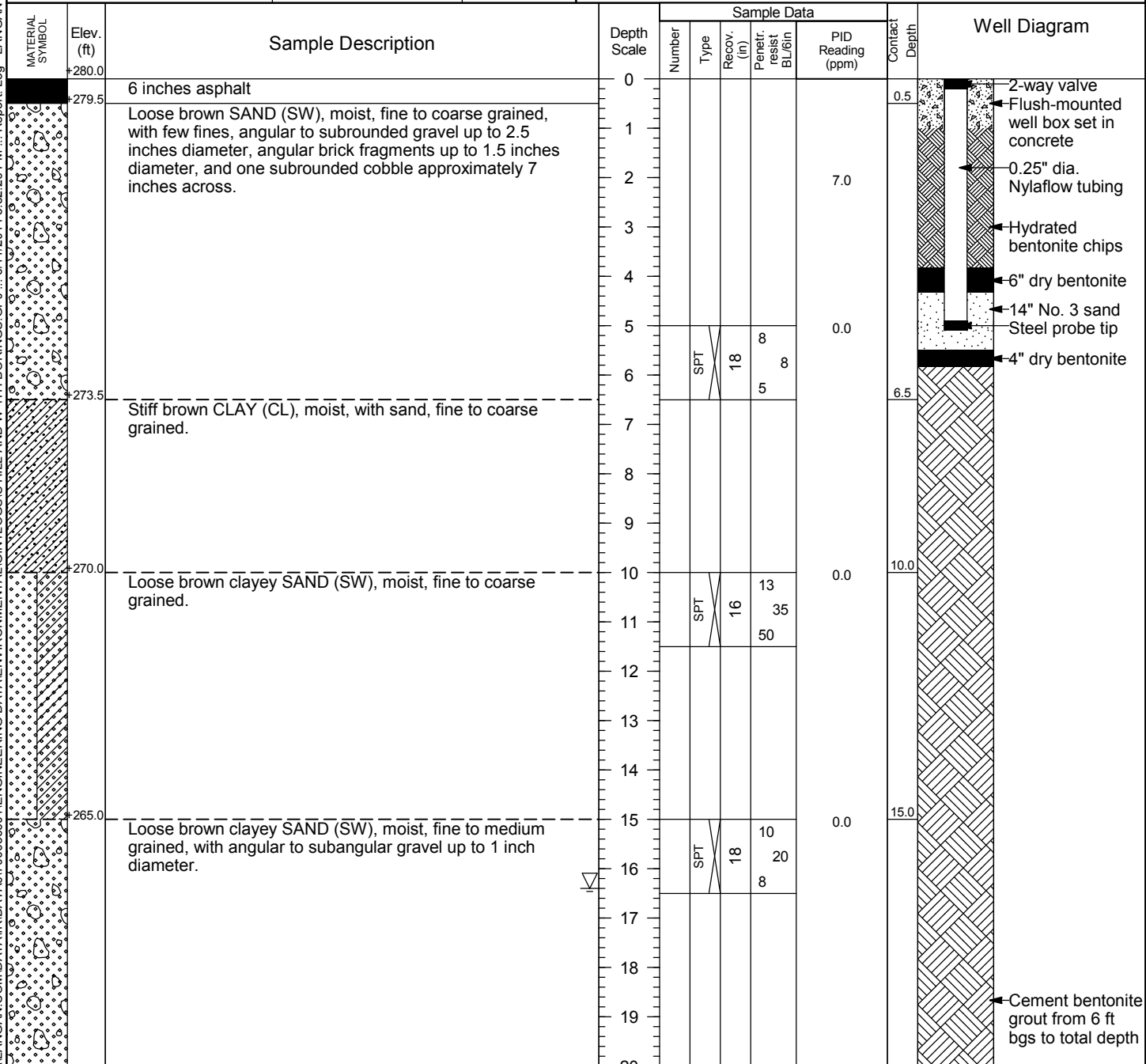
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Project 4th and Hill Phase II ESA				Project No. 700036602			
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)			
Drilling Company Martini Drilling Corporation				Date Started 6/9/14		Date Finished 6/9/14	
Drilling Equipment CME 75 Hollow-Stem Auger				Completion Depth 31.5 ft		Rock Depth	
Size and Type of Bit 7-inch O.D. 3.25-inch I.D. Hollow Stem Auger Bit				Number of Samples Disturbed 0		Undisturbed 6	
Casing Diameter (in) N/A				Casing Depth (ft) N/A		Core N/A	
Casing Hammer N/A				Weight (lbs) N/A		Drop (in) N/A	
Sampler SPT				Water Level (ft.) First 16.4			
Sampler Hammer Auto Hammer				Weight (lbs) 140 lb		Drop (in) 30"	
				Drilling Foreman Rachel Prohoroff			
				Inspecting Engineer Rachel Prohoroff			

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Project		Project No.							
4th and Hill Phase II ESA		700036602							
Location		Elevation and Datum							
South Hill Street and West 4th Street		Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Contact Depth	Well Diagram
				Number	Type	Recov. (in)	Penetr. resist. BL/6in		
	255.0	Loose reddish-brown clayey SAND (SW), moist, fine to coarse grained, with angular gravel at least 1.25 inches diameter.	20				11	0.3	
			21	SPT	18		45		
	248.5	Firm gray silty CLAYSTONE, moist, with trace limestone grains.	25				4	0.0	
			26	SPT	18		12		
	248.5	Firm gray silty CLAYSTONE, moist.	30					0.1	
			31	SPT	18				
		Total depth 31.5 feet below ground surface.	31.5						

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Log of Boring

**LB2-SGS**

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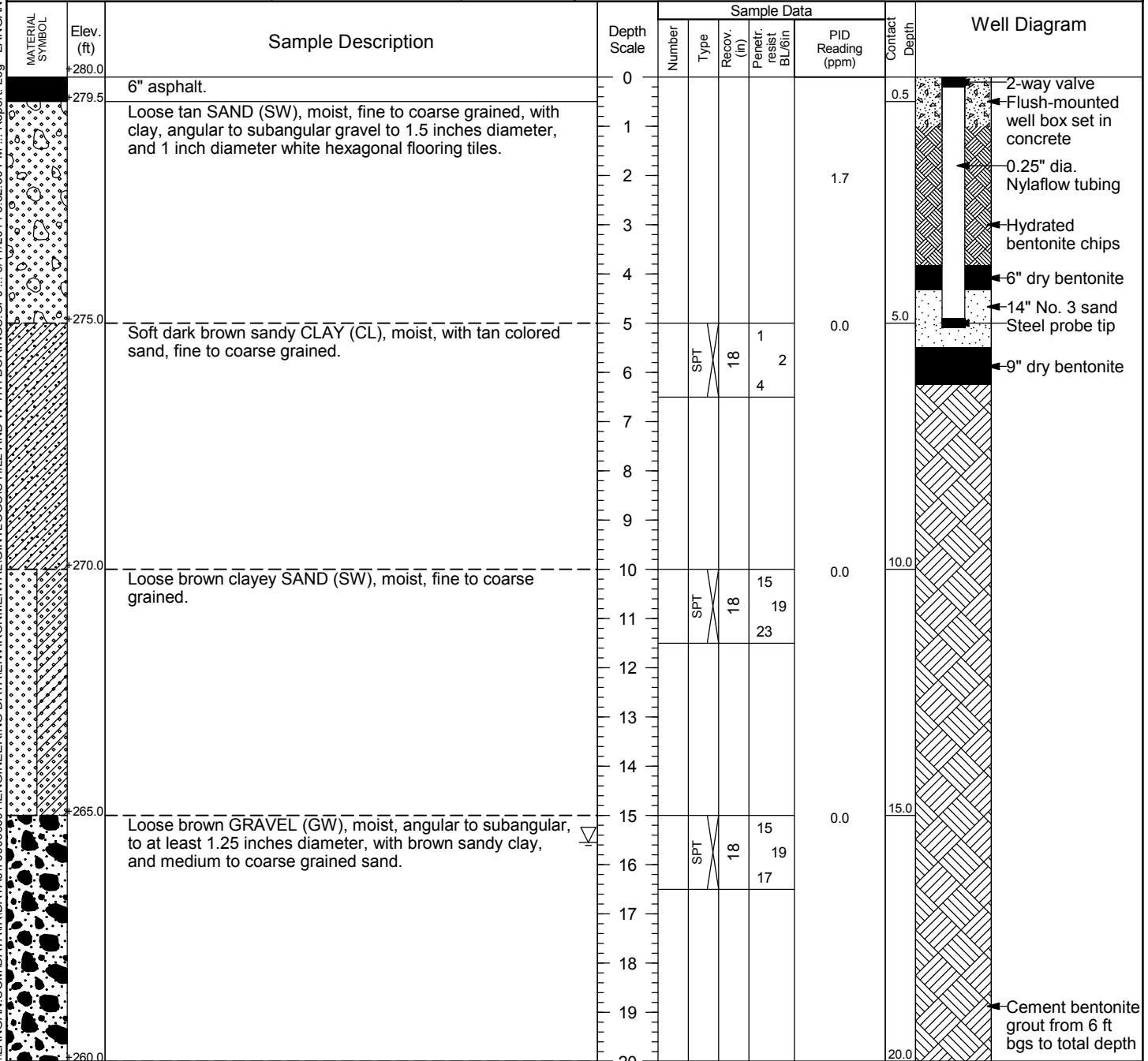
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Project 4th and Hill Phase II ESA				Project No. 700036602			
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)			
Drilling Company Martini Drilling Corporation				Date Started 6/9/14		Date Finished 6/9/14	
Drilling Equipment CME 75 Hollow-Stem Auger				Completion Depth 31.5 ft		Rock Depth	
Size and Type of Bit 7-inch O.D. 3.25-inch I.D. Hollow Stem Auger Bit				Number of Samples Disturbed 0		Undisturbed 6	Core N/A
Casing Diameter (in) N/A		Casing Depth (ft) N/A		Water Level (ft.) First 15.6		Completion N/A	24 HR. N/A
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman	
Sampler SPT				Inspecting Engineer Rachel Prohoroff			
Sampler Hammer Auto Hammer		Weight (lbs) 140 lb		Drop (in) 30"			

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Log of Boring

**LB2-SGS**

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Project 4th and Hill Phase II ESA	Project No. 700036602
Location South Hill Street and West 4th Street	Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)

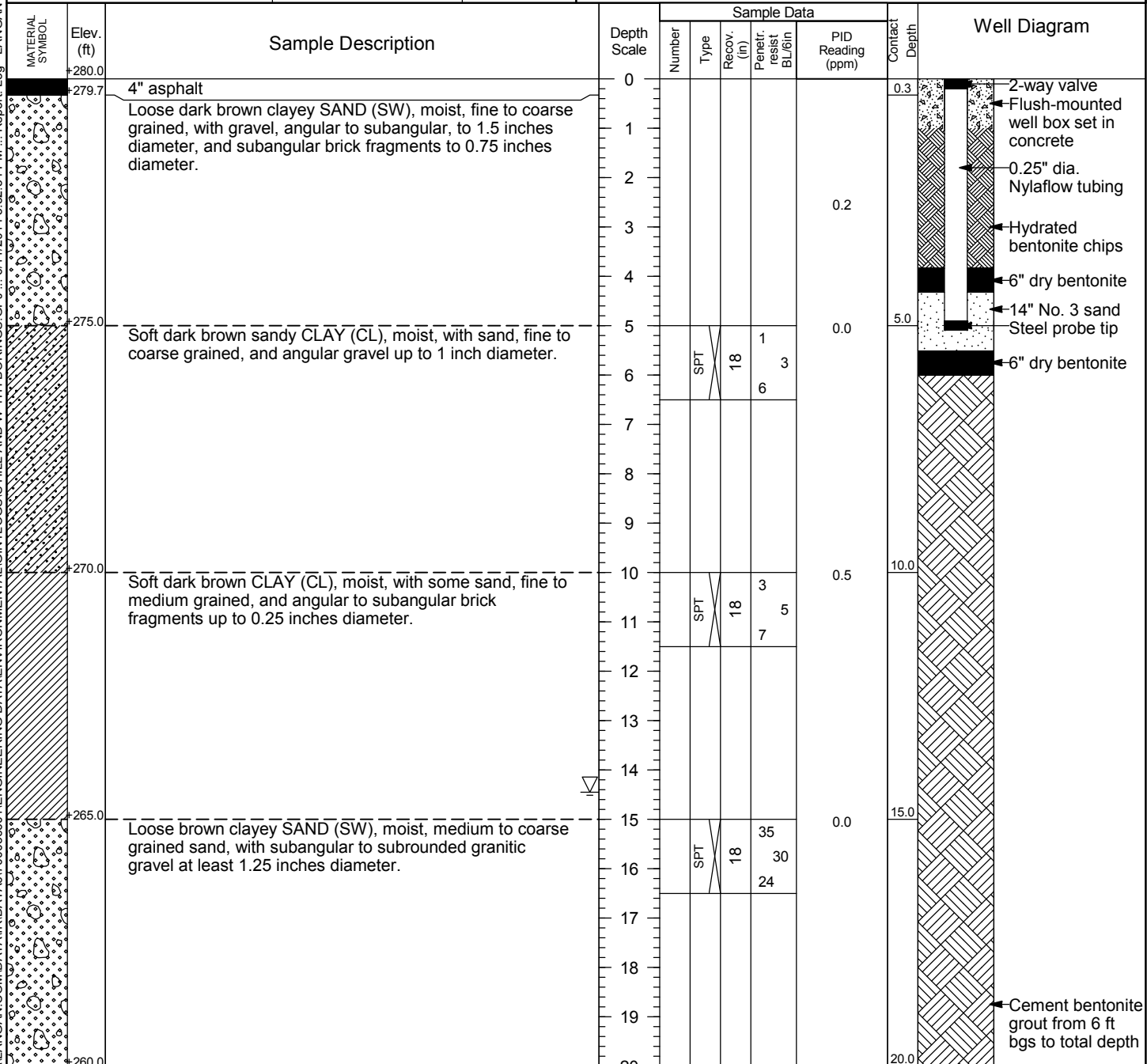
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				PID Reading (ppm)	Contact Depth	Well Diagram
				Number	Type	Recov. (in)	Penetr. resist. BL/6in			
	255.0	Loose brown clayey SAND (SW), wet, fine to coarse grained, with gravel, angular, to 0.75 inches diameter.	20				9	0.0		
			21	SPT	18	22	48			
			22							
			23							
			24							
			25							
			26	SPT	18	5	10			18
			27							
			28							
			29							
	248.5	Stiff gray silty CLAYSTONE, moist.	30				12	0.0		
			31	SPT	18	13	16			
			31.5							
		Total depth 31.5 feet below ground surface.	32							
			33							
			34							
			35							
			36							
			37							
			38							
			39							
			40							
			41							
			42							
			43							
			44							
			45							

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Project 4th and Hill Phase II ESA				Project No. 700036602			
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)			
Drilling Company Martini Drilling Corporation				Date Started 6/9/14		Date Finished 6/9/14	
Drilling Equipment CME 75 Hollow-Stem Auger				Completion Depth 31.5 ft		Rock Depth	
Size and Type of Bit 7-inch O.D. 3.25-inch I.D. Hollow Stem Auger Bit				Number of Samples Disturbed 0		Undisturbed 6	Core N/A
Casing Diameter (in) N/A		Casing Depth (ft) N/A		Water Level (ft.) First 14.5		Completion N/A	24 HR. N/A
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman	
Sampler SPT				Inspecting Engineer Rachel Prohoroff			
Sampler Hammer Auto Hammer		Weight (lbs) 140 lb		Drop (in) 30"			

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Log of Boring

**LB3-SGS**

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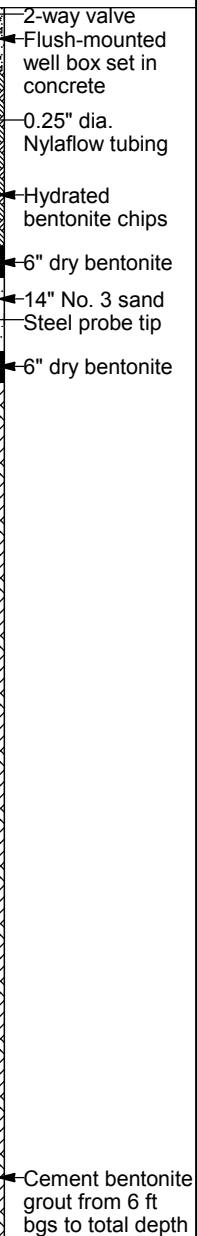
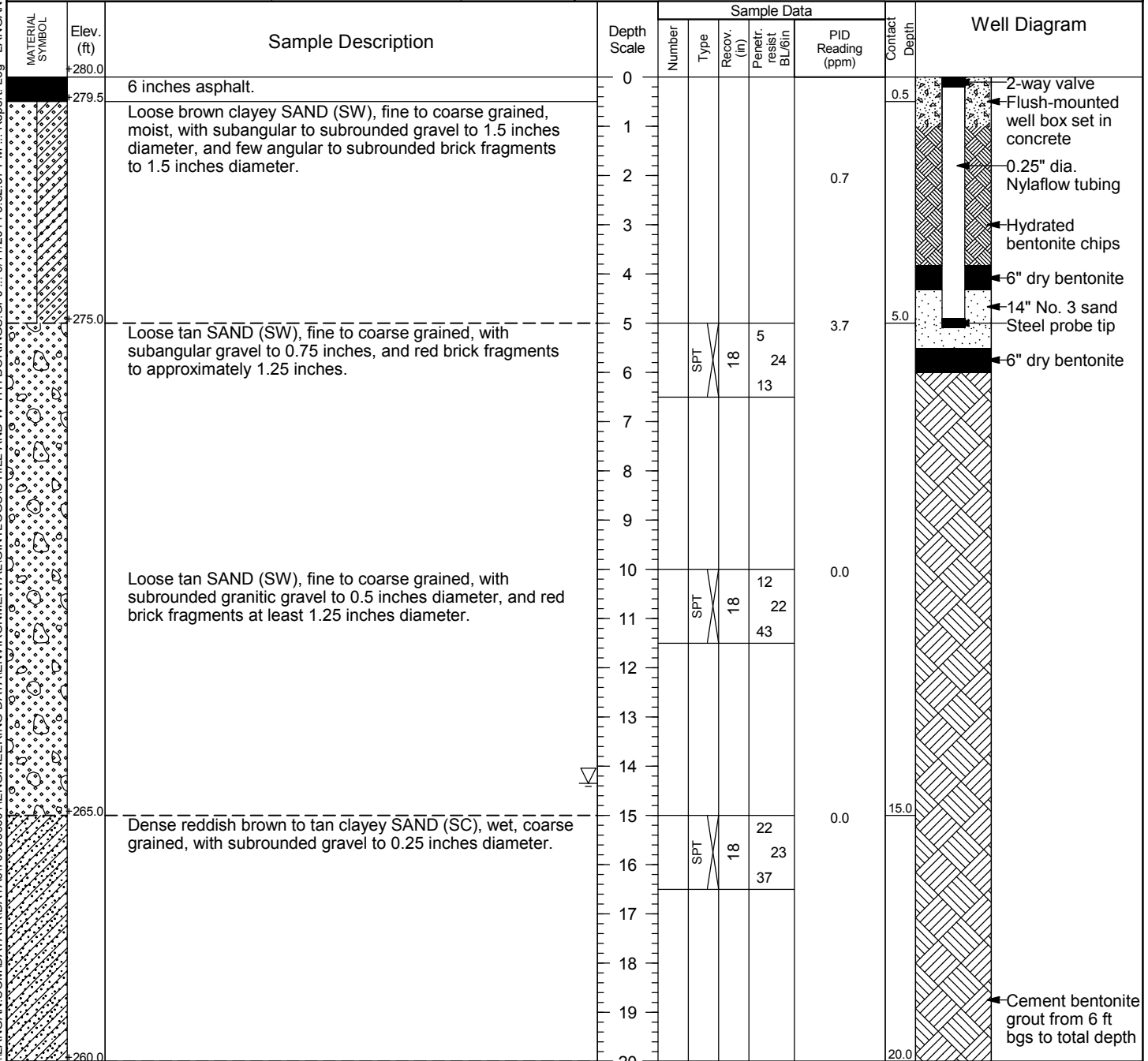
Project 4th and Hill Phase II ESA	Project No. 700036602
Location South Hill Street and West 4th Street	Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				PID Reading (ppm)	Contact Depth	Well Diagram
				Number	Type	Recov. (in)	Penetr. resist. BL/6in			
		Firm greenish gray silty CLAYSTONE, moist, with rust color mottling.	20				2	0.0		
			21	SPT		18	3			
			22				5			
			23							
			24							
			25				7	0.0		
			26	SPT		18	13			
			27				15			
			28							
			29							
			30				8	0.0		
			31	SPT		18	13			
			31.5				17			
		248.5	Total depth 31.5 feet below ground surface.	32						31.5
				33						
				34						
				35						
			36							
			37							
			38							
			39							
			40							
			41							
			42							
			43							
			44							
			45							

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Project 4th and Hill Phase II ESA				Project No. 700036602			
Location South Hill Street and West 4th Street				Elevation and Datum Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)			
Drilling Company Martini Drilling Corporation				Date Started 6/10/14		Date Finished 6/10/14	
Drilling Equipment CME 75 Hollow-Stem Auger				Completion Depth 31.5 ft		Rock Depth	
Size and Type of Bit 7-inch O.D. 3.25-inch I.D. Hollow Stem Auger Bit				Number of Samples Disturbed 0		Undisturbed 6	Core N/A
Casing Diameter (in) N/A		Casing Depth (ft) N/A		Water Level (ft.) First 14.4		Completion N/A	24 HR. N/A
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman	
Sampler SPT				Inspecting Engineer Rachel Prohoroff			
Sampler Hammer Auto Hammer		Weight (lbs) 140 lb		Drop (in) 30"			

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Log of Boring

**LB4-SGS**

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Project		Project No.							
4th and Hill Phase II ESA		700036602							
Location		Elevation and Datum							
South Hill Street and West 4th Street		Approx. 280 ft AMSL (USGS 7.5 Minute Series Los Angeles Quad, 1994)							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Contact Depth	Well Diagram
				Number	Type	Recov. (in)	Penetr. resist. BL/6in		
		Firm gray silty CLAYSTONE, moist.	20				7	0.0	
			21	SPT	18	12	17		
				22					
		Stiff gray silty CLAYSTONE, moist, with few limestone grains.	25				8	0.0	
			26	SPT	18	18	28		
				27					
		Stiff gray silty CLAYSTONE, moist, with trace limestone grains.	30				6	0.0	
			31	SPT	18	14	16		
				32					
	248.5	Total depth 31.5 feet below ground surface.							31.5
			32						
			33						
			34						
			35						
			36						
			37						
			38						
			39						
			40						
			41						
			42						
			43						
			44						
			45						

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**ATTACHMENT B  
LABORATORY ANALYTICAL RESULTS**



25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

30 May 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

**Reported:**  
 05/30/14 10:09

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-1-R-1-DUP	T141039-01	Soil	05/21/14 08:34	05/22/14 10:30
LB-1-R-2-DUP	T141039-02	Soil	05/21/14 08:43	05/22/14 10:30
LB-1-R-3-DUP	T141039-03	Soil	05/21/14 09:06	05/22/14 10:30
LB-1-R-4-DUP	T141039-04	Soil	05/21/14 09:17	05/22/14 10:30
LB-1-R-5-DUP	T141039-05	Soil	05/21/14 09:45	05/22/14 10:30
LB-1-R-6-DUP	T141039-06	Soil	05/21/14 10:20	05/22/14 10:30
LR-3-R-1-DUP	T141039-07	Soil	05/21/14 15:40	05/22/14 10:30
LR-3-R-2-DUP	T141039-08	Soil	05/21/14 15:55	05/22/14 10:30
LR-3-R-4-DUP	T141039-09	Soil	05/21/14 16:30	05/22/14 10:30
LR-3-R-5-DUP	T141039-10	Soil	05/21/14 16:37	05/22/14 10:30
LR-3-R-6-DUP	T141039-11	Soil	05/21/14 16:50	05/22/14 10:30

**DETECTIONS SUMMARY**

**Sample ID:** LB-1-R-1-DUP

**Laboratory ID:** T141039-01

**Reporting**

Analyte	Result	Limit	Units	Method	Notes
C29-C40 (MORO)	100	10	mg/kg	EPA 8015C	
Barium	420	1.0	mg/kg	EPA 6010B	
Chromium	14	2.0	mg/kg	EPA 6010B	
Cobalt	3.9	2.0	mg/kg	EPA 6010B	
Copper	22	1.0	mg/kg	EPA 6010B	
Lead	200	3.0	mg/kg	EPA 6010B	
Nickel	5.6	2.0	mg/kg	EPA 6010B	
Vanadium	18	5.0	mg/kg	EPA 6010B	
Zinc	200	1.0	mg/kg	EPA 6010B	
Mercury	0.50	0.10	mg/kg	EPA 7471A Soil	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:09

**Sample ID:** LB-1-R-2-DUP

**Laboratory ID:** T141039-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	59	1.0		mg/kg	EPA 6010B	
Chromium	3.3	2.0		mg/kg	EPA 6010B	
Cobalt	2.9	2.0		mg/kg	EPA 6010B	
Copper	8.0	1.0		mg/kg	EPA 6010B	
Nickel	3.0	2.0		mg/kg	EPA 6010B	
Vanadium	9.5	5.0		mg/kg	EPA 6010B	
Zinc	19	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-1-R-3-DUP

**Laboratory ID:** T141039-03

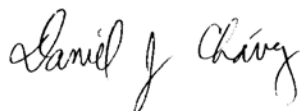
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
C13-C28 (DRO)	1500	10		mg/kg	EPA 8015C	
C29-C40 (MORO)	200	10		mg/kg	EPA 8015C	
Barium	78	1.0		mg/kg	EPA 6010B	
Chromium	5.1	2.0		mg/kg	EPA 6010B	
Cobalt	5.0	2.0		mg/kg	EPA 6010B	
Copper	11	1.0		mg/kg	EPA 6010B	
Nickel	7.8	2.0		mg/kg	EPA 6010B	
Vanadium	16	5.0		mg/kg	EPA 6010B	
Zinc	26	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-1-R-4-DUP

**Laboratory ID:** T141039-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
C13-C28 (DRO)	29	10		mg/kg	EPA 8015C	
Barium	68	1.0		mg/kg	EPA 6010B	
Chromium	25	2.0		mg/kg	EPA 6010B	
Cobalt	3.9	2.0		mg/kg	EPA 6010B	
Copper	9.1	1.0		mg/kg	EPA 6010B	
Nickel	4.1	2.0		mg/kg	EPA 6010B	
Vanadium	9.3	5.0		mg/kg	EPA 6010B	
Zinc	19	1.0		mg/kg	EPA 6010B	

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Daniel Chavez, Project Manager



Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:09

**Sample ID:** LB-1-R-5-DUP

**Laboratory ID:** T141039-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	71	1.0		mg/kg	EPA 6010B	
Chromium	19	2.0		mg/kg	EPA 6010B	
Cobalt	12	2.0		mg/kg	EPA 6010B	
Copper	29	1.0		mg/kg	EPA 6010B	
Lead	7.8	3.0		mg/kg	EPA 6010B	
Nickel	19	2.0		mg/kg	EPA 6010B	
Vanadium	35	5.0		mg/kg	EPA 6010B	
Zinc	68	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-1-R-6-DUP

**Laboratory ID:** T141039-06

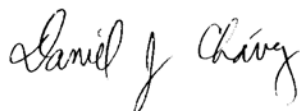
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	65	1.0		mg/kg	EPA 6010B	
Chromium	19	2.0		mg/kg	EPA 6010B	
Cobalt	9.4	2.0		mg/kg	EPA 6010B	
Copper	26	1.0		mg/kg	EPA 6010B	
Lead	5.8	3.0		mg/kg	EPA 6010B	
Nickel	20	2.0		mg/kg	EPA 6010B	
Vanadium	35	5.0		mg/kg	EPA 6010B	
Zinc	61	1.0		mg/kg	EPA 6010B	

**Sample ID:** LR-3-R-1-DUP

**Laboratory ID:** T141039-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	130	1.0		mg/kg	EPA 6010B	
Chromium	17	2.0		mg/kg	EPA 6010B	
Cobalt	10	2.0		mg/kg	EPA 6010B	
Copper	16	1.0		mg/kg	EPA 6010B	
Lead	5.0	3.0		mg/kg	EPA 6010B	
Nickel	13	2.0		mg/kg	EPA 6010B	
Vanadium	43	5.0		mg/kg	EPA 6010B	
Zinc	46	1.0		mg/kg	EPA 6010B	

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Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:09

**Sample ID:** LR-3-R-2-DUP

**Laboratory ID:** T141039-08

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	84	1.0		mg/kg	EPA 6010B	
Chromium	8.0	2.0		mg/kg	EPA 6010B	
Cobalt	5.6	2.0		mg/kg	EPA 6010B	
Copper	8.0	1.0		mg/kg	EPA 6010B	
Nickel	6.4	2.0		mg/kg	EPA 6010B	
Vanadium	21	5.0		mg/kg	EPA 6010B	
Zinc	27	1.0		mg/kg	EPA 6010B	

**Sample ID:** LR-3-R-4-DUP

**Laboratory ID:** T141039-09

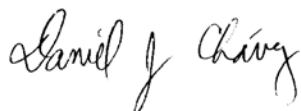
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	78	1.0		mg/kg	EPA 6010B	
Chromium	22	2.0		mg/kg	EPA 6010B	
Cobalt	13	2.0		mg/kg	EPA 6010B	
Copper	52	1.0		mg/kg	EPA 6010B	
Lead	6.4	3.0		mg/kg	EPA 6010B	
Nickel	25	2.0		mg/kg	EPA 6010B	
Vanadium	39	5.0		mg/kg	EPA 6010B	
Zinc	76	1.0		mg/kg	EPA 6010B	

**Sample ID:** LR-3-R-5-DUP

**Laboratory ID:** T141039-10

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	120	1.0		mg/kg	EPA 6010B	
Chromium	21	2.0		mg/kg	EPA 6010B	
Cobalt	11	2.0		mg/kg	EPA 6010B	
Copper	30	1.0		mg/kg	EPA 6010B	
Lead	5.5	3.0		mg/kg	EPA 6010B	
Nickel	24	2.0		mg/kg	EPA 6010B	
Vanadium	41	5.0		mg/kg	EPA 6010B	
Zinc	78	1.0		mg/kg	EPA 6010B	

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Langan Engineering & Environmental Services  
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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

**Reported:**  
 05/30/14 10:09

**Sample ID:** LR-3-R-6-DUP

**Laboratory ID:** T141039-11

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	74	1.0		mg/kg	EPA 6010B	
Chromium	19	2.0		mg/kg	EPA 6010B	
Cobalt	8.9	2.0		mg/kg	EPA 6010B	
Copper	19	1.0		mg/kg	EPA 6010B	
Lead	4.3	3.0		mg/kg	EPA 6010B	
Nickel	18	2.0		mg/kg	EPA 6010B	
Vanadium	32	5.0		mg/kg	EPA 6010B	
Zinc	56	1.0		mg/kg	EPA 6010B	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
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**LB-1-R-1-DUP**  
**T141039-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
<b>C29-C40 (MORO)</b>	<b>100</b>	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		90.9 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>420</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>14</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>22</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>200</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>5.6</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>18</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>200</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	<b>0.50</b>	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-1-DUP**  
**T141039-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-1-DUP**  
**T141039-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		118 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		102 %	85.5-116		"	"	"	"	

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**LB-1-R-2-DUP**  
**T141039-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>105 %</i>	<i>65-135</i>						

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>59</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>3.3</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>2.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>8.0</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.0</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>9.5</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>19</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-2-DUP**  
**T141039-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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**LB-1-R-2-DUP**  
**T141039-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		122 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		103 %	85.5-116		"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
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**LB-1-R-3-DUP**  
**T141039-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
<b>C13-C28 (DRO)</b>	<b>1500</b>	10	"	"	"	"	"	"	
<b>C29-C40 (MORO)</b>	<b>200</b>	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		93.0 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>78</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>5.1</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>5.0</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>11</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>7.8</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>16</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>26</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 05/30/14 10:09
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**LB-1-R-3-DUP**  
**T141039-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Langan Engineering & Environmental Services  
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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-3-DUP**  
**T141039-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		130 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		107 %	85.5-116		"	"	"	"	

SunStar Laboratories, Inc.

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

**Reported:**  
 05/30/14 10:09

**LB-1-R-4-DUP**  
**T141039-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
<b>C13-C28 (DRO)</b>	<b>29</b>	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.0 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	05/22/14	"	
Arsenic	ND	5.0	"	"	"	"	05/22/14	"	
<b>Barium</b>	<b>68</b>	1.0	"	"	"	"	05/22/14	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>25</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>9.1</b>	1.0	"	"	"	"	05/22/14	"	
Lead	ND	3.0	"	"	"	"	05/22/14	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.1</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>9.3</b>	5.0	"	"	"	"	05/22/14	"	
<b>Zinc</b>	<b>19</b>	1.0	"	"	"	"	05/22/14	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 05/30/14 10:09
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**LB-1-R-4-DUP**  
**T141039-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-4-DUP**  
**T141039-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		128 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		101 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
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**LB-1-R-5-DUP**  
**T141039-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		93.3 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>71</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	05/22/14	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>19</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>12</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>29</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>7.8</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>19</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>35</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>68</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager





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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 05/30/14 10:09
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**LB-1-R-5-DUP**  
**T141039-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-5-DUP**  
**T141039-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		119 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
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**LB-1-R-6-DUP**  
**T141039-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.5 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>65</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>19</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>9.4</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>26</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.8</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>20</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>35</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>61</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Langan Engineering & Environmental Services  
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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-6-DUP**  
**T141039-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LB-1-R-6-DUP**  
**T141039-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		112 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		97.9 %	85.5-116		"	"	"	"	

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**LR-3-R-1-DUP**  
**T141039-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>90.1 %</i>	<i>65-135</i>						

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>130</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>17</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>10</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>16</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.0</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>13</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>43</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>46</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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**LR-3-R-1-DUP**  
**T141039-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Daniel Chavez, Project Manager



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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-1-DUP**  
**T141039-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		114 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
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**LR-3-R-2-DUP**  
**T141039-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		90.8 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>84</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>8.0</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>5.6</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>8.0</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>6.4</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>21</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>27</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-2-DUP**  
**T141039-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-2-DUP**  
**T141039-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		122 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

**Reported:**  
 05/30/14 10:09

**LR-3-R-4-DUP**  
**T141039-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>91.7 %</i>	<i>65-135</i>						

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	05/22/14	"	
Arsenic	ND	5.0	"	"	"	"	05/22/14	"	
<b>Barium</b>	<b>78</b>	1.0	"	"	"	"	05/22/14	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>22</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>13</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>52</b>	1.0	"	"	"	"	05/22/14	"	
<b>Lead</b>	<b>6.4</b>	3.0	"	"	"	"	05/22/14	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>25</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Vanadium</b>	<b>39</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>76</b>	1.0	"	"	"	"	05/22/14	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager



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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-4-DUP**  
**T141039-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-4-DUP**  
**T141039-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/22/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		128 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	85.5-116		"	"	"	"	

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**LR-3-R-5-DUP**  
**T141039-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		93.0 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>120</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	05/22/14	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>21</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>11</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>30</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.5</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>24</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>41</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>78</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-5-DUP**  
**T141039-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-5-DUP**  
**T141039-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		119 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		96.5 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
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**LR-3-R-6-DUP**  
**T141039-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		93.1 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>74</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>19</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>19</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>4.3</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>18</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>32</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>56</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-6-DUP**  
**T141039-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**LR-3-R-6-DUP**  
**T141039-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		128 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		101 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052207 - EPA 3550B GC**

**Blank (4052207-BLK1)**

Prepared: 05/22/14 Analyzed: 05/23/14

C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: p-Terphenyl	91.2		"	100		91.2	65-135			

**LCS (4052207-BS1)**

Prepared: 05/22/14 Analyzed: 05/23/14

C13-C28 (DRO)	460	10	mg/kg	500		91.9	75-125			
Surrogate: p-Terphenyl	102		"	100		102	65-135			

**Matrix Spike (4052207-MS1)**

Source: T141039-01

Prepared: 05/22/14 Analyzed: 05/23/14

C13-C28 (DRO)	470	10	mg/kg	500	ND	94.7	75-125			
Surrogate: p-Terphenyl	105		"	99.9		105	65-135			

**Matrix Spike Dup (4052207-MSD1)**

Source: T141039-01

Prepared: 05/22/14 Analyzed: 05/23/14

C13-C28 (DRO)	450	10	mg/kg	499	ND	89.9	75-125	5.27	20	
Surrogate: p-Terphenyl	98.2		"	99.8		98.4	65-135			

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052124 - EPA 3051**

**Blank (4052124-BLK1)**

Prepared: 05/21/14 Analyzed: 05/22/14

Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							

**LCS (4052124-BS1)**

Prepared: 05/21/14 Analyzed: 05/23/14

Arsenic	119	5.0	mg/kg	100		119	75-125			
Barium	111	1.0	"	100		111	75-125			
Cadmium	110	2.0	"	100		110	75-125			
Chromium	114	2.0	"	100		114	75-125			
Lead	113	3.0	"	100		113	75-125			

**Matrix Spike (4052124-MS1)**

Source: T141033-13

Prepared: 05/21/14 Analyzed: 05/22/14

Arsenic	104	5.0	mg/kg	100	3.09	101	75-125			
Barium	176	1.0	"	100	63.4	112	75-125			
Cadmium	107	2.0	"	100	0.559	107	75-125			
Chromium	132	2.0	"	100	25.7	107	75-125			
Lead	114	3.0	"	100	8.09	106	75-125			

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**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052124 - EPA 3051**

Matrix Spike Dup (4052124-MSD1)	Source: T141033-13			Prepared: 05/21/14	Analyzed: 05/22/14					
Arsenic	104	5.0	mg/kg	100	3.09	101	75-125	0.172	20	
Barium	170	1.0	"	100	63.4	107	75-125	3.29	20	
Cadmium	105	2.0	"	100	0.559	105	75-125	1.60	20	
Chromium	130	2.0	"	100	25.7	104	75-125	1.85	20	
Lead	112	3.0	"	100	8.09	104	75-125	2.06	20	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:09
---	---	------------------------------------

**Cold Vapor Extraction EPA 7470/7471 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052125 - EPA 7471A Soil**

<b>Blank (4052125-BLK1)</b>				Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	ND	0.10	mg/kg							
<b>LCS (4052125-BS1)</b>				Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	0.359	0.10	mg/kg	0.417		86.2	80-120			
<b>Matrix Spike (4052125-MS1)</b>				Source: T141033-13 Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	0.359	0.10	mg/kg	0.410	ND	87.5	75-125			
<b>Matrix Spike Dup (4052125-MSD1)</b>				Source: T141033-13 Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	0.339	0.10	mg/kg	0.410	ND	82.7	75-125	5.73	20	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager





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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052208 - EPA 5030 GCMS**

**Blank (4052208-BLK1)**

Prepared & Analyzed: 05/22/14

Bromobenzene	ND	5.0	ug/kg							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052208 - EPA 5030 GCMS**

**Blank (4052208-BLK1)**

Prepared & Analyzed: 05/22/14

p-Isopropyltoluene	ND	5.0	ug/kg							
Methylene chloride	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Surrogate: 4-Bromofluorobenzene	39.1		"	40.0		97.8	81.2-123			
Surrogate: Dibromofluoromethane	49.4		"	40.0		123	95.7-135			
Surrogate: Toluene-d8	40.8		"	40.0		102	85.5-116			

**LCS (4052208-BS1)**

Prepared: 05/22/14 Analyzed: 05/23/14

Chlorobenzene	117	5.0	ug/kg	100		117	75-125			
1,1-Dichloroethene	114	5.0	"	100		114	75-125			
Trichloroethene	115	5.0	"	100		115	75-125			
Benzene	100	5.0	"	100		100	75-125			
Toluene	102	5.0	"	100		102	75-125			
Surrogate: 4-Bromofluorobenzene	43.2		"	40.0		108	81.2-123			
Surrogate: Dibromofluoromethane	52.8		"	40.0		132	95.7-135			
Surrogate: Toluene-d8	38.2		"	40.0		95.4	85.5-116			

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052208 - EPA 5030 GCMS**

**Matrix Spike (4052208-MS1)** Source: T141039-01 Prepared: 05/22/14 Analyzed: 05/23/14

Chlorobenzene	118	5.0	ug/kg	100	ND	118	75-125			
1,1-Dichloroethene	112	5.0	"	100	ND	112	75-125			
Trichloroethene	118	5.0	"	100	ND	118	75-125			
Benzene	105	5.0	"	100	ND	105	75-125			
Toluene	98.5	5.0	"	100	ND	98.5	75-125			
Surrogate: 4-Bromofluorobenzene	41.4		"	40.0		104	81.2-123			
Surrogate: Dibromofluoromethane	53.6		"	40.0		134	95.7-135			
Surrogate: Toluene-d8	36.9		"	40.0		92.2	85.5-116			

**Matrix Spike Dup (4052208-MSD1)** Source: T141039-01 Prepared: 05/22/14 Analyzed: 05/23/14

Chlorobenzene	117	5.0	ug/kg	100	ND	117	75-125	1.23	20	
1,1-Dichloroethene	112	5.0	"	100	ND	112	75-125	0.00	20	
Trichloroethene	118	5.0	"	100	ND	118	75-125	0.127	20	
Benzene	97.9	5.0	"	100	ND	97.9	75-125	6.57	20	
Toluene	94.0	5.0	"	100	ND	94.0	75-125	4.62	20	
Surrogate: 4-Bromofluorobenzene	42.0		"	40.0		105	81.2-123			
Surrogate: Dibromofluoromethane	52.8		"	40.0		132	95.7-135			
Surrogate: Toluene-d8	37.9		"	40.0		94.8	85.5-116			

SunStar Laboratories, Inc.

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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:09

### Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.

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---

Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: ~~XXXXXXXXXXXXXXXXXXXX~~ **Langgan**  
 Address: **32 Executive Park #130**  
 Phone: **949-255-8640** Fax: **949-255-8641**  
 Project Manager: **Keith Silbert**

Date: **5/21/14** Page: **1** of **1**  
 Project Name: **4th & Hill Environmental Sampling**  
 Collector: **Rachel Prohoroff** Client Project #: **7005 Seids**  
 Batch #: **7141039** EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B Vocs	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain Full Scan	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB-1-R-1-DUP	5/21	8:34A	501	6" stainless	X	X	X	X	X	X	X	X	X	01		1
LB-1-R-2-DUP	5/21	8:43A			X	X	X	X	X	X	X	X	X	02		1
LB-1-R-3-DUP	5/21	9:06A			X	X	X	X	X	X	X	X	X	03		1
LB-1-R-4-DUP	5/21	9:17A			X	X	X	X	X	X	X	X	X	04		1
LB-1-R-5-DUP	5/21	9:45A			X	X	X	X	X	X	X	X	X	05		1
LB-1-R-6-DUP	5/21	10:20A			X	X	X	X	X	X	X	X	X	06		1
LB-3-R-1-DUP		3:40PM			X	X	X	X	X	X	X	X	X	07		1
LB-3-R-2-DUP		3:50PM			X	X	X	X	X	X	X	X	X	08		1
LB-3-R-3-DUP		4:30PM			X	X	X	X	X	X	X	X	X	09		1
LB-3-R-4-DUP		4:33PM			X	X	X	X	X	X	X	X	X	10		1
LB-3-R-5-DUP		4:50PM			X	X	X	X	X	X	X	X	X	11		1
LB-3-R-6-DUP					X	X	X	X	X	X	X	X	X			1
Relinquished by: (signature) <b>Rainez Rainey</b> <b>5/21/14 6:30m</b>			Received by: (signature) <b>Rachel Prohoroff</b> <b>5/21/14 6:20</b>			Chain of Custody seals Y/N/NA			Total # of containers			Notes				
Relinquished by: (signature) <b>Rainez Rainey</b> <b>5/21/14</b>			Received by: (signature) <b>Rachel Prohoroff</b> <b>5/21/14 1030</b>			Seals Intact? Y/N/NA			Received good condition/cold			Normal TAT				
Relinquished by: (signature) _____ <b>5/21/14</b>			Received by: (signature) _____ <b>5/21/14</b>			Turn around time: <b>Normal</b>										

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131192

## SAMPLE RECEIVING REVIEW SHEET

BATCH # T1410391

Client Name: LANGAN

Project: 4TH HILL ENV. SAMPLING

Received by: DAN

Date/Time Received: 5.22.14 10:30

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 5.6 °C +/- the CF (-0.2°C) = 5.4 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

- Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A
- Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A
- Sample Containers Intact  Yes  No\*
- Sample labels match COC ID's  Yes  No\*
- Total number of containers received match COC  Yes  No\*
- Proper containers received for analyses requested on COC  Yes  No\*
- Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date BC 5.22.14

Comments:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



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10 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/10/14 11:50
---	---	------------------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-1-R-1-DUP	T141039-01	Soil	05/21/14 08:34	05/22/14 10:30

**DETECTIONS SUMMARY**

**Sample ID:** LB-1-R-1-DUP

**Laboratory ID:** T141039-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Lead	24	0.10		mg/l	STLC Waste Extractio	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager





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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/10/14 11:50
---	---	------------------------------------

**LB-1-R-1-DUP**  
**T141039-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**STLC Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	24	0.10	mg/l	1	4060421	06/04/14	06/09/14	STLC Waste Extraction Test	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 06/10/14 11:50
---	---	-----------------------------

**STLC Metals by 6000/7000 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4060421 - EPA 3051</b>										
<b>Blank (4060421-BLK1)</b> Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	ND	0.10	mg/l							
<b>LCS (4060421-BS1)</b> Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	12.2	0.10	mg/l	10.0		122	75-125			
<b>Matrix Spike (4060421-MS1)</b> Source: T141039-01 Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	40.1	0.10	mg/l	10.0	23.9	163	75-125			QM-05
<b>Matrix Spike Dup (4060421-MSD1)</b> Source: T141039-01 Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	34.7	0.10	mg/l	10.0	23.9	109	75-125	14.5	30	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

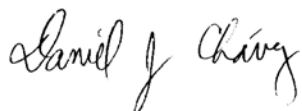
**Reported:**  
06/10/14 11:50

### Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

---

SunStar Laboratories, Inc.



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---

Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: ~~XXXXXXXXXXXXXXXXXXXX~~ **Langgan**  
 Address: **32 Executive Park #130**  
 Phone: **949-255-8640** Fax: **949-255-8641**  
 Project Manager: **Keith Silbert**

Date: **5/21/14** Page: **1** of **1**  
 Project Name: **4th & Hill Environmental Sampling**  
 Collector: **Rachel Prohoroff** Client Project #: **7005 Seisid2**  
 Batch #: **7141039** EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B Vocs	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain Full Scan	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers	
LB-1-R-1-DUP	5/21	8:34A	501	6" 5551eq	X	X	X	X	X	X	X	X	X	01		1	
LB-1-R-2-DUP	5/21	8:43A			X	X	X	X	X	X	X	X	X	02		1	
LB-1-R-3-DUP	5/21	9:06A			X	X	X	X	X	X	X	X	X	03		1	
LB-1-R-4-DUP	5/21	9:17A			X	X	X	X	X	X	X	X	X	04		1	
LB-1-R-5-DUP	5/21	9:45A			X	X	X	X	X	X	X	X	X	05		1	
LB-1-R-6-DUP	5/21	10:20A			X	X	X	X	X	X	X	X	X	06		1	
LB-3-R-1-DUP		3:40PM			X	X	X	X	X	X	X	X	X	07		1	
LB-3-R-2-DUP		3:50PM			X	X	X	X	X	X	X	X	X	08		1	
LB-3-R-3-DUP		4:30PM			X	X	X	X	X	X	X	X	X	09		1	
LB-3-R-4-DUP		4:37AM			X	X	X	X	X	X	X	X	X	10		1	
LB-3-R-5-DUP		4:50AM			X	X	X	X	X	X	X	X	X	11		1	
LB-3-R-6-DUP					X	X	X	X	X	X	X	X	X			1	
Relinquished by: (signature) <b>Raines Raintoif</b>			Received by: (signature) <b>Rachel Prohoroff</b>			Date / Time <b>5/21/14 6:30m</b>			Date / Time <b>5/21/14 6:20</b>			Chain of Custody seals Y/N/NA			Total # of containers <b>11</b>		
Relinquished by: (signature) <b>R. Silbert</b>			Received by: (signature) <b>R. Silbert</b>			Date / Time <b>5/22/14</b>			Date / Time <b>1030</b>			Received good condition/cold			Notes <b>Normal TAT</b>		
Relinquished by: (signature)			Received by: (signature)			Date / Time			Date / Time			Received good condition/cold			Notes		

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

Turn around time: **Normal**

COC 131192

## SAMPLE RECEIVING REVIEW SHEET

BATCH # T1410391

Client Name: LANGAN

Project: 4TH HILL ENV. SAMPLING

Received by: DAN

Date/Time Received: 5.22.14 10:30

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 5.6 °C +/- the CF (-0.2°C) = 5.4 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A

Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A

Sample Containers Intact  Yes  No\*

Sample labels match COC ID's  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date BC 5.22.14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

13 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/13/14 16:06
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-1-R-1-DUP	T141039-01	Soil	05/21/14 08:34	05/22/14 10:30

**DETECTIONS SUMMARY**

**Sample ID:** LB-1-R-1-DUP

**Laboratory ID:** T141039-01

**No Results Detected**

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/13/14 16:06
---	---	------------------------------------

**LB-1-R-1-DUP**  
**T141039-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TCLP Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	ND	0.10	mg/l	1	4061207	06/12/14	06/13/14	EPA 1311	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager





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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/13/14 16:06
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**TCLP Metals by 6000/7000 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4061207 - TCLP Metals</b>										
<b>Blank (4061207-BLK1)</b>				Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	ND	0.050	mg/l							
<b>LCS (4061207-BS1)</b>				Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	0.249	0.050	mg/l	0.250		99.7	75-125			
<b>Matrix Spike (4061207-MS1)</b>				Source: T141039-01 Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	0.277	0.050	mg/l	0.250	0.0658	84.3	75-125			
<b>Matrix Spike Dup (4061207-MSD1)</b>				Source: T141039-01 Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	0.267	0.050	mg/l	0.250	0.0658	80.3	75-125	3.68	30	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
06/13/14 16:06

### Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: ~~XXXXXXXXXXXXXXXXXXXX~~ **Langgan**  
 Address: **32 Executive Park #130**  
 Phone: **949-255-8640** Fax: **949-255-8641**  
 Project Manager: **Keith Silbert**

Date: **5/21/14** Page: **1** of **1**  
 Project Name: **4th & Hill Environmental Sampling**  
 Collector: **Rachel Prohoroff** Client Project #: **7005 Seisid2**  
 Batch #: **7141039** EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B Vocs	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain Full Scan	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB-1-R-1-DUP	5/21	8:34A	501	6" stainless	X	X	X	X	X	X	X	X	X	01		1
LB-1-R-2-DUP	5/21	8:43A			X	X	X	X	X	X	X	X	X	02		1
LB-1-R-3-DUP	5/21	9:06A			X	X	X	X	X	X	X	X	X	03		1
LB-1-R-4-DUP	5/21	9:17A			X	X	X	X	X	X	X	X	X	04		1
LB-1-R-5-DUP	5/21	9:45A			X	X	X	X	X	X	X	X	X	05		1
LB-1-R-6-DUP	5/21	10:20A			X	X	X	X	X	X	X	X	X	06		1
LB-3-R-1-DUP		3:40PM			X	X	X	X	X	X	X	X	X	07		1
LB-3-R-2-DUP		3:50PM			X	X	X	X	X	X	X	X	X	08		1
LB-3-R-3-DUP		4:30PM			X	X	X	X	X	X	X	X	X	09		1
LB-3-R-4-DUP		4:33PM			X	X	X	X	X	X	X	X	X	10		1
LB-3-R-5-DUP		4:50PM			X	X	X	X	X	X	X	X	X	11		1
LB-3-R-6-DUP					X	X	X	X	X	X	X	X	X			1
Relinquished by: (signature) _____ Date / Time _____ Relinquished by: (signature) <b>Rachel Prohoroff</b> 5/21/14 6:30m Relinquished by: (signature) _____ Date / Time _____ Relinquished by: (signature) <b>Keith Silbert</b> 5/21/14 10:30																
Received by: (signature) _____ Date / Time _____ Received by: (signature) <b>Rachel Prohoroff</b> 5/21/14 6:20 Received by: (signature) _____ Date / Time _____ Received by: (signature) <b>Keith Silbert</b> 5/22/14 10:30																
Chain of Custody seals Y/N/NA Seals Intact? Y/N/NA Received good condition/cold Total # of containers Turn around time: <b>Normal</b>																
Notes <b>Normal TAT</b> <b>5:4</b>																

## SAMPLE RECEIVING REVIEW SHEET

BATCH # T1410391

Client Name: LANGAN

Project: 4TH HILL ENV. SAMPLING

Received by: DAN

Date/Time Received: 5.22.14 10:30

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 5.6 °C +/- the CF (-0.2°C) = 5.4 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

- Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A
- Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A
- Sample Containers Intact  Yes  No\*
- Sample labels match COC ID's  Yes  No\*
- Total number of containers received match COC  Yes  No\*
- Proper containers received for analyses requested on COC  Yes  No\*
- Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date BC 5.22.14

Comments:

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30 May 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 12:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:13

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-2-R-1-DUP	T141040-01	Soil	05/22/14 08:26	05/22/14 12:00
LB-2-R-2-DUP	T141040-02	Soil	05/22/14 08:40	05/22/14 12:00
LB-2-R-3-DUP	T141040-03	Soil	05/22/14 08:52	05/22/14 12:00
LB-2-R-4-DUP	T141040-04	Soil	05/22/14 09:05	05/22/14 12:00
LB-2-R-5-DUP	T141040-05	Soil	05/22/14 09:10	05/22/14 12:00
LB-2-R-6-DUP	T141040-06	Soil	05/22/14 09:45	05/22/14 12:00

### DETECTIONS SUMMARY

**Sample ID:** LB-2-R-1-DUP

**Laboratory ID:** T141040-01

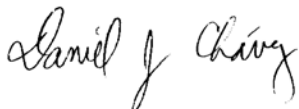
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	310	1.0		mg/kg	EPA 6010B	
Chromium	11	2.0		mg/kg	EPA 6010B	
Cobalt	3.9	2.0		mg/kg	EPA 6010B	
Copper	13	1.0		mg/kg	EPA 6010B	
Lead	510	3.0		mg/kg	EPA 6010B	
Nickel	3.8	2.0		mg/kg	EPA 6010B	
Vanadium	15	5.0		mg/kg	EPA 6010B	
Zinc	450	1.0		mg/kg	EPA 6010B	
Mercury	0.21	0.10		mg/kg	EPA 7471A Soil	

**Sample ID:** LB-2-R-2-DUP

**Laboratory ID:** T141040-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	64	1.0		mg/kg	EPA 6010B	
Chromium	4.9	2.0		mg/kg	EPA 6010B	
Cobalt	3.5	2.0		mg/kg	EPA 6010B	
Copper	18	1.0		mg/kg	EPA 6010B	
Lead	7.3	3.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:13

**Sample ID:** LB-2-R-2-DUP

**Laboratory ID:** T141040-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Nickel	4.5	2.0		mg/kg	EPA 6010B	
Vanadium	12	5.0		mg/kg	EPA 6010B	
Zinc	27	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-2-R-3-DUP

**Laboratory ID:** T141040-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	25	1.0		mg/kg	EPA 6010B	
Chromium	2.8	2.0		mg/kg	EPA 6010B	
Cobalt	2.2	2.0		mg/kg	EPA 6010B	
Copper	7.8	1.0		mg/kg	EPA 6010B	
Nickel	3.1	2.0		mg/kg	EPA 6010B	
Vanadium	8.8	5.0		mg/kg	EPA 6010B	
Zinc	14	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-2-R-4-DUP

**Laboratory ID:** T141040-04

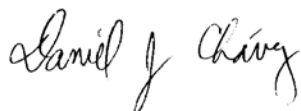
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	15	5.0		mg/kg	EPA 6010B	
Barium	160	1.0		mg/kg	EPA 6010B	
Chromium	18	2.0		mg/kg	EPA 6010B	
Cobalt	8.8	2.0		mg/kg	EPA 6010B	
Copper	26	1.0		mg/kg	EPA 6010B	
Lead	5.6	3.0		mg/kg	EPA 6010B	
Nickel	18	2.0		mg/kg	EPA 6010B	
Vanadium	47	5.0		mg/kg	EPA 6010B	
Zinc	56	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-2-R-5-DUP

**Laboratory ID:** T141040-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	88	1.0		mg/kg	EPA 6010B	
Chromium	21	2.0		mg/kg	EPA 6010B	
Cobalt	12	2.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:13

**Sample ID:** LB-2-R-5-DUP

**Laboratory ID:** T141040-05

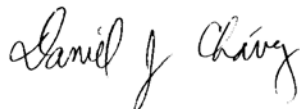
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Copper	30	1.0		mg/kg	EPA 6010B	
Lead	6.6	3.0		mg/kg	EPA 6010B	
Nickel	19	2.0		mg/kg	EPA 6010B	
Vanadium	43	5.0		mg/kg	EPA 6010B	
Zinc	74	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-2-R-6-DUP

**Laboratory ID:** T141040-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	69	1.0		mg/kg	EPA 6010B	
Chromium	17	2.0		mg/kg	EPA 6010B	
Cobalt	8.9	2.0		mg/kg	EPA 6010B	
Copper	21	1.0		mg/kg	EPA 6010B	
Lead	5.2	3.0		mg/kg	EPA 6010B	
Nickel	17	2.0		mg/kg	EPA 6010B	
Vanadium	31	5.0		mg/kg	EPA 6010B	
Zinc	52	1.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



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Daniel Chavez, Project Manager





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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

**Reported:**  
 05/30/14 10:13

**LB-2-R-1-DUP**  
**T141040-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		91.9 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>310</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	05/22/14	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>11</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>13</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>510</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.8</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>15</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>450</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	0.21	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



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 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-1-DUP**  
**T141040-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Langan Engineering & Environmental Services  
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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-1-DUP**  
**T141040-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		116 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:13
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**LB-2-R-2-DUP**  
**T141040-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		90.8 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>64</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>4.9</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.5</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>18</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>7.3</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.5</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>12</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>27</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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**LB-2-R-2-DUP**  
**T141040-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-2-DUP**  
**T141040-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		128 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		101 %	85.5-116		"	"	"	"	

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**LB-2-R-3-DUP**  
**T141040-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		90.2 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>25</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>2.8</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>2.2</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>7.8</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.1</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>8.8</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>14</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-3-DUP**  
**T141040-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-3-DUP**  
**T141040-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		128 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	85.5-116		"	"	"	"	

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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

**Reported:**  
 05/30/14 10:13

**LB-2-R-4-DUP**  
**T141040-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		96.8 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
<b>Arsenic</b>	<b>15</b>	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>160</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	05/22/14	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>18</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.8</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>26</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.6</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>18</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>47</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>56</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 05/30/14 10:13
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**LB-2-R-4-DUP**  
**T141040-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-4-DUP**  
**T141040-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		131 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 05/30/14 10:13
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**LB-2-R-5-DUP**  
**T141040-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		96.3 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>88</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	05/22/14	"	
Cadmium	ND	2.0	"	"	"	"	05/22/14	"	
<b>Chromium</b>	<b>21</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>12</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>30</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>6.6</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>19</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>43</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>74</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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Langan Engineering & Environmental Services  
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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-5-DUP**  
**T141040-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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**LB-2-R-5-DUP**  
**T141040-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.6 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		135 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	85.5-116		"	"	"	"	

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:13
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**LB-2-R-6-DUP**  
**T141040-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052207	05/22/14	05/23/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		89.4 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052124	05/22/14	05/22/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>69</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>17</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>21</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.2</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>17</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>31</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>52</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052125	05/22/14	05/22/14	EPA 7471A Soil	
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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-6-DUP**  
**T141040-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**LB-2-R-6-DUP**  
**T141040-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052208	05/22/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.5 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		115 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		104 %	85.5-116		"	"	"	"	

SunStar Laboratories, Inc.

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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052207 - EPA 3550B GC**

**Blank (4052207-BLK1)**

Prepared: 05/22/14 Analyzed: 05/23/14

C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: p-Terphenyl	91.2		"	100		91.2	65-135			

**LCS (4052207-BS1)**

Prepared: 05/22/14 Analyzed: 05/23/14

C13-C28 (DRO)	460	10	mg/kg	500		91.9	75-125			
Surrogate: p-Terphenyl	102		"	100		102	65-135			

**Matrix Spike (4052207-MS1)**

Source: T141039-01

Prepared: 05/22/14 Analyzed: 05/23/14

C13-C28 (DRO)	470	10	mg/kg	500	ND	94.7	75-125			
Surrogate: p-Terphenyl	105		"	99.9		105	65-135			

**Matrix Spike Dup (4052207-MSD1)**

Source: T141039-01

Prepared: 05/22/14 Analyzed: 05/23/14

C13-C28 (DRO)	450	10	mg/kg	499	ND	89.9	75-125	5.27	20	
Surrogate: p-Terphenyl	98.2		"	99.8		98.4	65-135			

SunStar Laboratories, Inc.

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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052124 - EPA 3051**

**Blank (4052124-BLK1)**

Prepared: 05/21/14 Analyzed: 05/22/14

Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							

**LCS (4052124-BS1)**

Prepared: 05/21/14 Analyzed: 05/23/14

Arsenic	119	5.0	mg/kg	100		119	75-125			
Barium	111	1.0	"	100		111	75-125			
Cadmium	110	2.0	"	100		110	75-125			
Chromium	114	2.0	"	100		114	75-125			
Lead	113	3.0	"	100		113	75-125			

**Matrix Spike (4052124-MS1)**

Source: T141033-13

Prepared: 05/21/14 Analyzed: 05/22/14

Arsenic	104	5.0	mg/kg	100	3.09	101	75-125			
Barium	176	1.0	"	100	63.4	112	75-125			
Cadmium	107	2.0	"	100	0.559	107	75-125			
Chromium	132	2.0	"	100	25.7	107	75-125			
Lead	114	3.0	"	100	8.09	106	75-125			

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:13
---	---	------------------------------------

**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052124 - EPA 3051**

Matrix Spike Dup (4052124-MSD1)	Source: T141033-13			Prepared: 05/21/14	Analyzed: 05/22/14					
Arsenic	104	5.0	mg/kg	100	3.09	101	75-125	0.172	20	
Barium	170	1.0	"	100	63.4	107	75-125	3.29	20	
Cadmium	105	2.0	"	100	0.559	105	75-125	1.60	20	
Chromium	130	2.0	"	100	25.7	104	75-125	1.85	20	
Lead	112	3.0	"	100	8.09	104	75-125	2.06	20	

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 05/30/14 10:13
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**Cold Vapor Extraction EPA 7470/7471 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052125 - EPA 7471A Soil**

<b>Blank (4052125-BLK1)</b>				Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	ND	0.10	mg/kg							
<b>LCS (4052125-BS1)</b>				Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	0.359	0.10	mg/kg	0.417		86.2	80-120			
<b>Matrix Spike (4052125-MS1)</b>				Source: T141033-13 Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	0.359	0.10	mg/kg	0.410	ND	87.5	75-125			
<b>Matrix Spike Dup (4052125-MSD1)</b>				Source: T141033-13 Prepared: 05/21/14 Analyzed: 05/22/14						
Mercury	0.339	0.10	mg/kg	0.410	ND	82.7	75-125	5.73	20	

SunStar Laboratories, Inc.

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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052208 - EPA 5030 GCMS**

**Blank (4052208-BLK1)**

Prepared & Analyzed: 05/22/14

Bromobenzene	ND	5.0	ug/kg							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052208 - EPA 5030 GCMS**

**Blank (4052208-BLK1)**

Prepared & Analyzed: 05/22/14

p-Isopropyltoluene	ND	5.0	ug/kg							
Methylene chloride	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Surrogate: 4-Bromofluorobenzene	39.1		"	40.0		97.8	81.2-123			
Surrogate: Dibromofluoromethane	49.4		"	40.0		123	95.7-135			
Surrogate: Toluene-d8	40.8		"	40.0		102	85.5-116			

**LCS (4052208-BS1)**

Prepared: 05/22/14 Analyzed: 05/23/14

Chlorobenzene	117	5.0	ug/kg	100		117	75-125			
1,1-Dichloroethene	114	5.0	"	100		114	75-125			
Trichloroethene	115	5.0	"	100		115	75-125			
Benzene	100	5.0	"	100		100	75-125			
Toluene	102	5.0	"	100		102	75-125			
Surrogate: 4-Bromofluorobenzene	43.2		"	40.0		108	81.2-123			
Surrogate: Dibromofluoromethane	52.8		"	40.0		132	95.7-135			
Surrogate: Toluene-d8	38.2		"	40.0		95.4	85.5-116			

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 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: 700056602  
 Project Manager: Keith Gilbert

Reported:  
 05/30/14 10:13

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052208 - EPA 5030 GCMS**

**Matrix Spike (4052208-MS1)**

Source: T141039-01

Prepared: 05/22/14 Analyzed: 05/23/14

Chlorobenzene	118	5.0	ug/kg	100	ND	118	75-125			
1,1-Dichloroethene	112	5.0	"	100	ND	112	75-125			
Trichloroethene	118	5.0	"	100	ND	118	75-125			
Benzene	105	5.0	"	100	ND	105	75-125			
Toluene	98.5	5.0	"	100	ND	98.5	75-125			
Surrogate: 4-Bromofluorobenzene	41.4		"	40.0		104	81.2-123			
Surrogate: Dibromofluoromethane	53.6		"	40.0		134	95.7-135			
Surrogate: Toluene-d8	36.9		"	40.0		92.2	85.5-116			

**Matrix Spike Dup (4052208-MSD1)**

Source: T141039-01

Prepared: 05/22/14 Analyzed: 05/23/14

Chlorobenzene	117	5.0	ug/kg	100	ND	117	75-125	1.23	20	
1,1-Dichloroethene	112	5.0	"	100	ND	112	75-125	0.00	20	
Trichloroethene	118	5.0	"	100	ND	118	75-125	0.127	20	
Benzene	97.9	5.0	"	100	ND	97.9	75-125	6.57	20	
Toluene	94.0	5.0	"	100	ND	94.0	75-125	4.62	20	
Surrogate: 4-Bromofluorobenzene	42.0		"	40.0		105	81.2-123			
Surrogate: Dibromofluoromethane	52.8		"	40.0		132	95.7-135			
Surrogate: Toluene-d8	37.9		"	40.0		94.8	85.5-116			

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32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
05/30/14 10:13

### Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

---

SunStar Laboratories, Inc.

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---

Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Lanman  
 Address: 32 Executive Park, Ste 130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 5/22/14 Page: 1 Of 1  
 Project Name: 4th & Hill Environmental Sampling  
 Collector: Rachel Prohaska Client Project #: 70056602  
 Batch #: 741090 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260 B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB-2-P-1-DUP	5/22	8:26	Soil	55 Stearic	X							X	X	01		1
LB-2-P-2-DUP		8:40										X	X	02		1
LB-2-K-3-DUP		8:52										X	X	03		1
LB-2-R-4-DUP		9:05										X	X	04		1
LB-2-K-5-DUP		9:10										X	X	05		1
LB-2-K-6-DUP		9:45										X	X	06		1
Relinquished by: (signature) <u>Rachel Prohaska</u> Date / Time <u>5/22 12:00</u> Received by: (signature) <u>[Signature]</u> Date / Time <u>5-22-14 12:00</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																
Total # of containers: <u>6</u> Chain of Custody seals Y/N/A: <u>Y</u> Received good condition/cold: <u>Y</u> Turn around time: <u>5 days</u>																

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131693

## SAMPLE RECEIVING REVIEW SHEET

BATCH # T1410410

Client Name: LANGAN ENG.

Project: 4TH & HILL ENV.

Received by: SUNNY

Date/Time Received: 5-22-14 / 12:00

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 4.6 °C +/- the CF (- 0.2°C) = 4.4 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A

Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A

Sample Containers Intact  Yes  No\*

Sample labels match COC ID's  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date SL 5-22-14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

10 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 12:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/10/14 11:51
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-2-R-1-DUP	T141040-01	Soil	05/22/14 08:26	05/22/14 12:00

**DETECTIONS SUMMARY**

**Sample ID:** LB-2-R-1-DUP

**Laboratory ID:** T141040-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Lead	17	0.10		mg/l	STLC Waste Extractio	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/10/14 11:51
---	---	------------------------------------

**LB-2-R-1-DUP**  
**T141040-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**STLC Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	17	0.10	mg/l	1	4060421	06/04/14	06/09/14	STLC Waste Extraction Test	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 06/10/14 11:51
---	---	-----------------------------

**STLC Metals by 6000/7000 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4060421 - EPA 3051</b>										
<b>Blank (4060421-BLK1)</b> Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	ND	0.10	mg/l							
<b>LCS (4060421-BS1)</b> Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	12.2	0.10	mg/l	10.0		122	75-125			
<b>Matrix Spike (4060421-MS1)</b> Source: T141039-01 Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	40.1	0.10	mg/l	10.0	23.9	163	75-125			QM-05
<b>Matrix Spike Dup (4060421-MSD1)</b> Source: T141039-01 Prepared: 06/04/14 Analyzed: 06/09/14										
Lead	34.7	0.10	mg/l	10.0	23.9	109	75-125	14.5	30	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

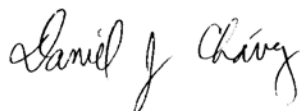
**Reported:**  
06/10/14 11:51

### Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

---

Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Lanman  
 Address: 32 Executive Park, Ste 130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 5/22/14 Page: 1 Of 1  
 Project Name: 4th & Hill Environmental Sampling  
 Collector: Rachel Prohaska Client Project #: 70056602  
 Batch #: 741090 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260 B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB-2-P-1-DUP	5/22	8:26	Soil	55 Stearic	X							X	X	01		1
LB-2-P-2-DUP		8:40										X	X	02		1
LB-2-K-3-DUP		8:52										X	X	03		1
LB-2-R-4-DUP		9:05										X	X	04		1
LB-2-K-5-DUP		9:10										X	X	05		1
LB-2-K-6-DUP		9:45										X	X	06		1
Relinquished by: (signature) <u>Rachel Prohaska</u> Date / Time <u>5/22 12:00</u> Received by: (signature) <u>[Signature]</u> Date / Time <u>5-22-14 12:00</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																
Total # of containers: <u>6</u> Chain of Custody seals Y/N/A: <u>Y</u> Received good condition/cold: <u>Y</u> Turn around time: <u>5 days</u>																

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131693

## SAMPLE RECEIVING REVIEW SHEET

BATCH # T1410410

Client Name: LANGAN ENG.

Project: 4TH & HILL ENV.

Received by: SUNNY

Date/Time Received: 5-22-14 / 12:00

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 4.6 °C +/- the CF (- 0.2°C) = 4.4 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A

Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A

Sample Containers Intact  Yes  No\*

Sample labels match COC ID's  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date SL 5-22-14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
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13 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/22/14 12:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/13/14 16:07
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-2-R-1-DUP	T141040-01	Soil	05/22/14 08:26	05/22/14 12:00

**DETECTIONS SUMMARY**

**Sample ID:** LB-2-R-1-DUP

**Laboratory ID:** T141040-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Lead	0.31	0.10		mg/l	EPA 1311	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/13/14 16:07
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**LB-2-R-1-DUP**  
**T141040-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TCLP Metals by 6000/7000 Series Methods**

Lead	0.31	0.10	mg/l	1	4061207	06/12/14	06/13/14	EPA 1311	
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SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: 700056602 Project Manager: Keith Gilbert	Reported: 06/13/14 16:07
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**TCLP Metals by 6000/7000 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4061207 - TCLP Metals</b>										
<b>Blank (4061207-BLK1)</b>				Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	ND	0.050	mg/l							
<b>LCS (4061207-BS1)</b>				Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	0.249	0.050	mg/l	0.250		99.7	75-125			
<b>Matrix Spike (4061207-MS1)</b>				Source: T141039-01 Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	0.277	0.050	mg/l	0.250	0.0658	84.3	75-125			
<b>Matrix Spike Dup (4061207-MSD1)</b>				Source: T141039-01 Prepared: 06/12/14 Analyzed: 06/13/14						
Lead	0.267	0.050	mg/l	0.250	0.0658	80.3	75-125	3.68	30	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



25712 Commercentre Drive  
Lake Forest, California 92630  
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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: 700056602  
Project Manager: Keith Gilbert

**Reported:**  
06/13/14 16:07

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

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SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Daniel Chavez, Project Manager



# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Lanman  
 Address: 32 Executive Park, Ste 130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 5/22/14 Page: 1 Of 1  
 Project Name: 4th & Hill Environmental Sampling  
 Collector: Rachel Prohaska Client Project #: 70056602  
 Batch #: 741090 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260 B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB-2-P-1-DUP	5/22	8:26	Soil	55 Stearic	X							X	X	01		1
LB-2-P-2-DUP		8:40			X							X	X	02		1
LB-2-K-3-DUP		8:52			X							X	X	03		1
LB-2-R-4-DUP		9:05			X							X	X	04		1
LB-2-K-5-DUP		9:10			X							X	X	05		1
LB-2-K-6-DUP		9:45			X							X	X	06		1
Relinquished by: (signature) <u>Rachel Prohaska</u> Date / Time <u>5/22 12:00</u> Received by: (signature) <u>[Signature]</u> Date / Time <u>5-22-14 12:00</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																
Total # of containers: <u>6</u> Chain of Custody seals Y/N/A: <u>Y</u> Received good condition/cold: <u>Y</u> Turn around time: <u>5 days</u>																

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131693

## SAMPLE RECEIVING REVIEW SHEET

BATCH # T1410410

Client Name: LANGRAN ENG.

Project: 4TH & HILL ENV.

Received by: SUNNY

Date/Time Received: 5-22-14 / 12:00

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 4.6 °C +/- the CF (- 0.2°C) = 4.4 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A

Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A

Sample Containers Intact  Yes  No\*

Sample labels match COC ID's  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date SL 5-22-14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

02 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Environmental Sampling

Enclosed are the results of analyses for samples received by the laboratory on 05/23/14 10:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: [none]  
Project Manager: Keith Gilbert

**Reported:**  
06/02/14 12:09

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB-4-R-1-DUP	T141056-01	Soil	05/23/14 08:25	05/23/14 10:40
LB-4-R-2-DUP	T141056-02	Soil	05/23/14 08:38	05/23/14 10:40
LB-4-R-3-DUP	T141056-03	Soil	05/23/14 08:48	05/23/14 10:40
LB-4-R-4-DUP	T141056-04	Soil	05/23/14 09:00	05/23/14 10:40
LB-4-R-5-DUP	T141056-05	Soil	05/23/14 09:10	05/23/14 10:40
LB-4-R-6-DUP	T141056-06	Soil	05/23/14 09:22	05/23/14 10:40

### DETECTIONS SUMMARY

**Sample ID:** LB-4-R-1-DUP

**Laboratory ID:** T141056-01

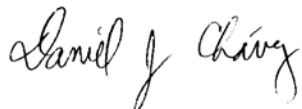
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	72	1.0		mg/kg	EPA 6010B	
Chromium	8.1	2.0		mg/kg	EPA 6010B	
Cobalt	4.3	2.0		mg/kg	EPA 6010B	
Copper	42	1.0		mg/kg	EPA 6010B	
Lead	5.8	3.0		mg/kg	EPA 6010B	
Nickel	6.5	2.0		mg/kg	EPA 6010B	
Vanadium	19	5.0		mg/kg	EPA 6010B	
Zinc	38	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-4-R-2-DUP

**Laboratory ID:** T141056-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	100	1.0		mg/kg	EPA 6010B	
Chromium	17	2.0		mg/kg	EPA 6010B	
Cobalt	9.4	2.0		mg/kg	EPA 6010B	
Copper	21	1.0		mg/kg	EPA 6010B	
Lead	5.8	3.0		mg/kg	EPA 6010B	
Nickel	12	2.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: [none]  
Project Manager: Keith Gilbert

**Reported:**  
06/02/14 12:09

**Sample ID:** LB-4-R-2-DUP

**Laboratory ID:** T141056-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Vanadium	35	5.0		mg/kg	EPA 6010B	
Zinc	62	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-4-R-3-DUP

**Laboratory ID:** T141056-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	110	1.0		mg/kg	EPA 6010B	
Chromium	18	2.0		mg/kg	EPA 6010B	
Cobalt	10	2.0		mg/kg	EPA 6010B	
Copper	17	1.0		mg/kg	EPA 6010B	
Lead	6.0	3.0		mg/kg	EPA 6010B	
Nickel	18	2.0		mg/kg	EPA 6010B	
Vanadium	36	5.0		mg/kg	EPA 6010B	
Zinc	62	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-4-R-4-DUP

**Laboratory ID:** T141056-04

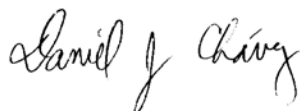
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	100	1.0		mg/kg	EPA 6010B	
Chromium	27	2.0		mg/kg	EPA 6010B	
Cobalt	14	2.0		mg/kg	EPA 6010B	
Copper	34	1.0		mg/kg	EPA 6010B	
Lead	8.3	3.0		mg/kg	EPA 6010B	
Nickel	24	2.0		mg/kg	EPA 6010B	
Vanadium	44	5.0		mg/kg	EPA 6010B	
Zinc	79	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-4-R-5-DUP

**Laboratory ID:** T141056-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	93	1.0		mg/kg	EPA 6010B	
Chromium	28	2.0		mg/kg	EPA 6010B	
Cobalt	13	2.0		mg/kg	EPA 6010B	
Copper	31	1.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
Project Number: [none]  
Project Manager: Keith Gilbert

**Reported:**  
06/02/14 12:09

**Sample ID:** LB-4-R-5-DUP

**Laboratory ID:** T141056-05

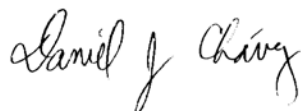
Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Lead	6.9	3.0	mg/kg	EPA 6010B	
Nickel	23	2.0	mg/kg	EPA 6010B	
Vanadium	43	5.0	mg/kg	EPA 6010B	
Zinc	78	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB-4-R-6-DUP

**Laboratory ID:** T141056-06

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	120	1.0	mg/kg	EPA 6010B	
Chromium	55	2.0	mg/kg	EPA 6010B	
Cobalt	15	2.0	mg/kg	EPA 6010B	
Copper	42	1.0	mg/kg	EPA 6010B	
Lead	7.9	3.0	mg/kg	EPA 6010B	
Nickel	31	2.0	mg/kg	EPA 6010B	
Vanadium	74	5.0	mg/kg	EPA 6010B	
Zinc	37	1.0	mg/kg	EPA 6010B	

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: [none] Project Manager: Keith Gilbert	Reported: 06/02/14 12:09
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**LB-4-R-1-DUP**  
**T141056-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052213	05/27/14	05/28/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		86.2 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052215	05/23/14	05/23/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>72</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>8.1</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>4.3</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>42</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.8</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>6.5</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>19</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>38</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052216	05/23/14	05/23/14	EPA 7471A Soil	
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**LB-4-R-1-DUP**  
**T141056-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052330	05/23/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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**LB-4-R-1-DUP**  
**T141056-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052330	05/23/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.2 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		24.0 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		100 %	85.5-116		"	"	"	"	

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**LB-4-R-2-DUP**  
**T141056-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052213	05/27/14	05/28/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.3 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052215	05/23/14	05/23/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>100</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>17</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>9.4</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>21</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.8</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>12</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>35</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>62</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052216	05/23/14	05/23/14	EPA 7471A Soil	
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**LB-4-R-2-DUP**  
**T141056-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052330	05/23/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**LB-4-R-2-DUP**  
**T141056-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052330	05/23/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		110 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	85.5-116		"	"	"	"	

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**LB-4-R-3-DUP**  
**T141056-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052213	05/27/14	05/28/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		85.4 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052215	05/23/14	05/23/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>110</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>18</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>10</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>17</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>6.0</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>18</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>36</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>62</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052216	05/23/14	05/23/14	EPA 7471A Soil	
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**LB-4-R-3-DUP**  
**T141056-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052330	05/23/14	05/23/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Langan Engineering & Environmental Services  
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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**LB-4-R-3-DUP**  
**T141056-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052330	05/23/14	05/23/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.1 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		154 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		99.1 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**LB-4-R-4-DUP**  
**T141056-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052213	05/27/14	05/28/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		86.0 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052215	05/23/14	05/23/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>100</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	05/23/14	"	
Cadmium	ND	2.0	"	"	"	"	05/23/14	"	
<b>Chromium</b>	<b>27</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>14</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>34</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>8.3</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>24</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>44</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>79</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052216	05/23/14	05/23/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager





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**LB-4-R-4-DUP**  
**T141056-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052330	05/23/14	05/27/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: [none] Project Manager: Keith Gilbert	Reported: 06/02/14 12:09
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**LB-4-R-4-DUP**  
**T141056-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052330	05/23/14	05/27/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		112 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		105 %	85.5-116		"	"	"	"	

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Daniel Chavez, Project Manager



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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

**Reported:**  
 06/02/14 12:09

**LB-4-R-5-DUP**  
**T141056-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052213	05/27/14	05/28/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		87.6 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052215	05/23/14	05/23/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>93</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>28</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>13</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>31</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>6.9</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>23</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>43</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>78</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052216	05/23/14	05/23/14	EPA 7471A Soil	
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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**LB-4-R-5-DUP**  
**T141056-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052330	05/23/14	05/24/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**LB-4-R-5-DUP**  
**T141056-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052330	05/23/14	05/24/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.4 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		125 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		98.4 %	85.5-116		"	"	"	"	

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: [none] Project Manager: Keith Gilbert	Reported: 06/02/14 12:09
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**LB-4-R-6-DUP**  
**T141056-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4052213	05/27/14	05/28/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		88.3 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4052215	05/23/14	05/23/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	05/23/14	"	
Arsenic	ND	5.0	"	"	"	"	05/23/14	"	
<b>Barium</b>	<b>120</b>	1.0	"	"	"	"	05/23/14	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	05/23/14	"	
<b>Chromium</b>	<b>55</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>15</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>42</b>	1.0	"	"	"	"	05/23/14	"	
<b>Lead</b>	<b>7.9</b>	3.0	"	"	"	"	05/23/14	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>31</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	05/23/14	"	
<b>Vanadium</b>	<b>74</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>37</b>	1.0	"	"	"	"	05/23/14	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4052216	05/23/14	05/23/14	EPA 7471A Soil	
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Environmental Sampling Project Number: [none] Project Manager: Keith Gilbert	Reported: 06/02/14 12:09
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**LB-4-R-6-DUP**  
**T141056-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4052330	05/23/14	05/24/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**LB-4-R-6-DUP**  
**T141056-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4052330	05/23/14	05/24/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.9 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		106 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		69.9 %	85.5-116		"	"	"	"	S-GC

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052213 - EPA 3550B GC**

**Blank (4052213-BLK1)**

Prepared: 05/22/14 Analyzed: 05/27/14

C13-C28 (DRO)	ND	10	mg/kg							
C29-C40 (MORO)	ND	10	"							
Surrogate: p-Terphenyl	99.7		"	100		99.7	65-135			

**LCS (4052213-BS1)**

Prepared: 05/22/14 Analyzed: 05/27/14

C13-C28 (DRO)	460	10	mg/kg	500		92.2	75-125			
Surrogate: p-Terphenyl	92.4		"	100		92.4	65-135			

**Matrix Spike (4052213-MS1)**

Source: T141043-01

Prepared: 05/22/14 Analyzed: 05/28/14

C13-C28 (DRO)	1400	10	mg/kg	500	1500	NR	75-125			QM-05
Surrogate: p-Terphenyl	91.1		"	100		91.1	65-135			

**Matrix Spike Dup (4052213-MSD1)**

Source: T141043-01

Prepared: 05/22/14 Analyzed: 05/28/14

C13-C28 (DRO)	1300	10	mg/kg	500	1500	NR	75-125	7.93	20	QM-05
Surrogate: p-Terphenyl	104		"	100		104	65-135			

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052215 - EPA 3051**

**Blank (4052215-BLK1)**

Prepared: 05/22/14 Analyzed: 05/23/14

Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							

**LCS (4052215-BS1)**

Prepared: 05/22/14 Analyzed: 05/27/14

Arsenic	106	5.0	mg/kg	100		106	75-125			
Barium	97.5	1.0	"	100		97.5	75-125			
Cadmium	96.2	2.0	"	100		96.2	75-125			
Chromium	95.9	2.0	"	100		95.9	75-125			
Lead	96.1	3.0	"	100		96.1	75-125			

**Matrix Spike (4052215-MS1)**

Source: T141043-01

Prepared: 05/22/14 Analyzed: 05/23/14

Arsenic	122	5.0	mg/kg	100	2.09	120	75-125			
Barium	176	1.0	"	100	166	9.69	75-125			QM-05
Cadmium	112	2.0	"	100	0.896	111	75-125			
Chromium	130	2.0	"	100	31.7	98.7	75-125			
Lead	118	3.0	"	100	6230	NR	75-125			QM-4X

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Project: 4th & Hill Environmental Sampling  
Project Number: [none]  
Project Manager: Keith Gilbert

**Reported:**  
06/02/14 12:09

**Metals by EPA 6010B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052215 - EPA 3051**

**Matrix Spike Dup (4052215-MSD1)**

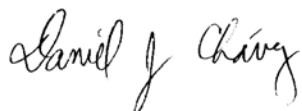
**Source: T141043-01**

Prepared: 05/22/14

Analyzed: 05/23/14

Arsenic	110	5.0	mg/kg	100	2.09	108	75-125	10.4	20	
Barium	150	1.0	"	100	166	NR	75-125	15.7	20	QM-05
Cadmium	101	2.0	"	100	0.896	99.9	75-125	10.6	20	
Chromium	114	2.0	"	100	31.7	82.5	75-125	13.2	20	
Lead	104	3.0	"	100	6230	NR	75-125	12.2	20	QM-4X

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Project: 4th & Hill Environmental Sampling  
Project Number: [none]  
Project Manager: Keith Gilbert

**Reported:**  
06/02/14 12:09

**Cold Vapor Extraction EPA 7470/7471 - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052216 - EPA 7471A Soil**

**Blank (4052216-BLK1)**

Prepared: 05/22/14 Analyzed: 05/23/14

Mercury ND 0.10 mg/kg

**LCS (4052216-BS1)**

Prepared: 05/22/14 Analyzed: 05/23/14

Mercury 0.384 0.10 mg/kg 0.417 92.2 80-120

**Matrix Spike (4052216-MS1)**

**Source: T141043-01**

Prepared: 05/22/14 Analyzed: 05/23/14

Mercury 0.401 0.10 mg/kg 0.417 0.0316 88.6 75-125

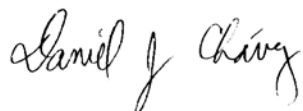
**Matrix Spike Dup (4052216-MSD1)**

**Source: T141043-01**

Prepared: 05/22/14 Analyzed: 05/23/14

Mercury 0.405 0.10 mg/kg 0.417 0.0316 89.5 75-125 0.973 20

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052330 - EPA 5030 GCMS**

**Blank (4052330-BLK1)**

Prepared & Analyzed: 05/23/14

Bromobenzene	ND	5.0	ug/kg							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							

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Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052330 - EPA 5030 GCMS**

**Blank (4052330-BLK1)**

Prepared & Analyzed: 05/23/14

p-Isopropyltoluene	ND	5.0	ug/kg							
Methylene chloride	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Surrogate: 4-Bromofluorobenzene	38.6		"	40.0		96.4	81.2-123			
Surrogate: Dibromofluoromethane	42.6		"	40.0		106	95.7-135			
Surrogate: Toluene-d8	39.9		"	40.0		99.8	85.5-116			

**LCS (4052330-BS1)**

Prepared: 05/23/14 Analyzed: 05/24/14

Chlorobenzene	112	5.0	ug/kg	100		112	75-125			
1,1-Dichloroethene	90.0	5.0	"	100		90.0	75-125			
Trichloroethene	93.5	5.0	"	100		93.5	75-125			
Benzene	109	5.0	"	100		109	75-125			
Toluene	91.0	5.0	"	100		91.0	75-125			
Surrogate: 4-Bromofluorobenzene	40.0		"	40.0		99.9	81.2-123			
Surrogate: Dibromofluoromethane	47.5		"	40.0		119	95.7-135			
Surrogate: Toluene-d8	35.2		"	40.0		88.0	85.5-116			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Environmental Sampling  
 Project Number: [none]  
 Project Manager: Keith Gilbert

Reported:  
 06/02/14 12:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4052330 - EPA 5030 GCMS**

<b>Matrix Spike (4052330-MS1)</b>		<b>Source: T141056-01</b>			Prepared: 05/23/14		Analyzed: 05/24/14		
Chlorobenzene	139	5.0	ug/kg	100	ND	139	75-125		QM-05
1,1-Dichloroethene	110	5.0	"	100	ND	110	75-125		
Trichloroethene	161	5.0	"	100	ND	161	75-125		QM-05
Benzene	128	5.0	"	100	ND	128	75-125		QM-05
Toluene	97.8	5.0	"	100	ND	97.8	75-125		
Surrogate: 4-Bromofluorobenzene	39.2		"	40.0		98.1	81.2-123		
Surrogate: Dibromofluoromethane	2.00		"	40.0		5.00	95.7-135		S-GC
Surrogate: Toluene-d8	35.9		"	40.0		89.8	85.5-116		

<b>Matrix Spike Dup (4052330-MSD1)</b>		<b>Source: T141056-01</b>			Prepared: 05/23/14		Analyzed: 05/24/14			
Chlorobenzene	120	5.0	ug/kg	100	ND	120	75-125	14.3	20	
1,1-Dichloroethene	96.0	5.0	"	100	ND	96.0	75-125	13.5	20	
Trichloroethene	133	5.0	"	100	ND	133	75-125	19.0	20	QM-05
Benzene	104	5.0	"	100	ND	104	75-125	19.9	20	
Toluene	82.6	5.0	"	100	ND	82.6	75-125	17.0	20	
Surrogate: 4-Bromofluorobenzene	36.6		"	40.0		91.4	81.2-123			
Surrogate: Dibromofluoromethane	2.65		"	40.0		6.62	95.7-135			S-GC
Surrogate: Toluene-d8	32.6		"	40.0		81.4	85.5-116			S-GC

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

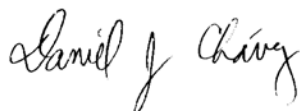
Project: 4th & Hill Environmental Sampling  
Project Number: [none]  
Project Manager: Keith Gilbert

**Reported:**  
06/02/14 12:09

### Notes and Definitions

- S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

SunStar Laboratories, Inc.



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Daniel Chavez, Project Manager



# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commerce Centre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Lanman  
 Address: 322 Executive Park Ste 130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 5/23/14 Page: 1 of 1  
 Project Name: 4th & Hill Environmental Sampling  
 Collector: Rachel Peterson Client Project #: \_\_\_\_\_  
 Batch #: 7141056 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB-4-R-1-DUP	5/23	8:25A	Soil	6" SS sledge	X							X	X	01		1
LB-4-R-2-DUP		8:38A										X	X	02		1
LB-4-R-3-DUP		8:48A										X	X	03		1
LB-4-R-4-DUP		9:00A										X	X	04		1
LB-4-R-5-DUP		9:10A										X	X	05		1
LB-4-R-6-DUP		9:22A										X	X	06		1
Relinquished by: (signature) <u>Rachel Peterson</u> Date / Time <u>5/23 10:40A</u> Received by: (signature) <u>[Signature]</u> Date / Time <u>5-23-14 10:40</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																
Chain of Custody seals <u>Y/N/A</u> Seals intact? <u>Y/N/A</u> Received good condition/cold <u>5-4</u> Turn around time: <u>Std</u>																
Total # of containers: _____ Notes: _____																

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

## SAMPLE RECEIVING REVIEW SHEET

**BATCH #**           T141056          

**Client Name:**           LANGAN          

**Project:**           4TH & HILL ENV. SAMPLING          

**Received by:**           SUNNY          

**Date/Time Received:**           5.23.14 / 10:46          

**Delivered by :**    Client    SunStar Courier    GSO    FedEx    Other \_\_\_\_\_

**Total number of coolers received**     0                       **Temp criteria = 6°C > 0°C (no frozen containers)**

**Temperature: cooler #1**   5.6   °C +/- the CF (- 0.2°C) =   5.4   °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

**Samples outside temp. but received on ice, w/in 6 hours of final sampling.**    Yes    No\*    N/A

**Custody Seals Intact on Cooler/Sample**    Yes    No\*    N/A

**Sample Containers Intact**    Yes    No\*

**Sample labels match COC ID's**    Yes    No\*

**Total number of containers received match COC**    Yes    No\*

**Proper containers received for analyses requested on COC**                            Yes    No\*

**Proper preservative indicated on COC/containers for analyses requested**        Yes    No\*    N/A

**Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.**    Yes    No\*

\* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date           SA 5.23.14          

**Comments:**

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

12 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Phase II ESA

Enclosed are the results of analyses for samples received by the laboratory on 06/09/14 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB3-SGS-5.5-6	T141169-01	Soil	06/09/14 07:40	06/09/14 16:00
LB3-SGS-10.5-11	T141169-02	Soil	06/09/14 07:46	06/09/14 16:00
LB3-SGS-15.5-16	T141169-03	Soil	06/09/14 07:53	06/09/14 16:00
LB3-SGS-20-20.5	T141169-04	Soil	06/09/14 08:01	06/09/14 16:00
LB3-SGS-25.5-26	T141169-05	Soil	06/09/14 08:43	06/09/14 16:00
LB3-SGS-30-30.5	T141169-06	Soil	06/09/14 08:50	06/09/14 16:00
LB2-SGS-5-5.5	T141169-07	Soil	06/09/14 09:56	06/09/14 16:00
LB2-SGS-10.5-11	T141169-08	Soil	06/09/14 10:01	06/09/14 16:00
LB2-SGS-15-15.5	T141169-09	Soil	06/09/14 10:05	06/09/14 16:00
LB2-SGS-20-20.5	T141169-10	Soil	06/09/14 10:15	06/09/14 16:00
LB2-SGS-25.5-26	T141169-11	Soil	06/09/14 10:38	06/09/14 16:00
LB2-SGS-30-30.5	T141169-12	Soil	06/09/14 10:45	06/09/14 16:00
LB1-SGS-5.5-6	T141169-13	Soil	06/09/14 11:53	06/09/14 16:00
LB1-SGS-10.5-11	T141169-14	Soil	06/09/14 11:58	06/09/14 16:00
LB1-SGS-15-15.5	T141169-15	Soil	06/09/14 12:07	06/09/14 16:00
LB1-SGS-20.5-21	T141169-16	Soil	06/09/14 12:14	06/09/14 16:00
LB1-SGS-25-25.5	T141169-17	Soil	06/09/14 12:21	06/09/14 16:00
LB1-SGS-30.5-31	T141169-18	Soil	06/09/14 12:29	06/09/14 16:00
LB1-SGS-GW	T141169-19	Water	06/09/14 13:20	06/09/14 16:00
TRIP BLANK	T141169-20	Water	06/09/14 13:20	06/09/14 16:00

**DETECTIONS SUMMARY**

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB3-SGS-5.5-6

**Laboratory ID:** T141169-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	110	1.0		mg/kg	EPA 6010B	
Chromium	17	2.0		mg/kg	EPA 6010B	
Cobalt	11	2.0		mg/kg	EPA 6010B	
Copper	35	1.0		mg/kg	EPA 6010B	
Lead	34	3.0		mg/kg	EPA 6010B	
Nickel	15	2.0		mg/kg	EPA 6010B	
Vanadium	38	5.0		mg/kg	EPA 6010B	
Zinc	74	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB3-SGS-10.5-11

**Laboratory ID:** T141169-02

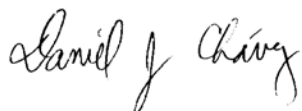
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	130	1.0		mg/kg	EPA 6010B	
Chromium	18	2.0		mg/kg	EPA 6010B	
Cobalt	12	2.0		mg/kg	EPA 6010B	
Copper	14	1.0		mg/kg	EPA 6010B	
Lead	4.1	3.0		mg/kg	EPA 6010B	
Nickel	13	2.0		mg/kg	EPA 6010B	
Vanadium	50	5.0		mg/kg	EPA 6010B	
Zinc	54	1.0		mg/kg	EPA 6010B	
Mercury	0.10	0.10		mg/kg	EPA 7471A Soil	

**Sample ID:** LB3-SGS-15.5-16

**Laboratory ID:** T141169-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	32	1.0		mg/kg	EPA 6010B	
Chromium	4.2	2.0		mg/kg	EPA 6010B	
Cobalt	3.3	2.0		mg/kg	EPA 6010B	
Copper	14	1.0		mg/kg	EPA 6010B	
Nickel	4.2	2.0		mg/kg	EPA 6010B	
Vanadium	13	5.0		mg/kg	EPA 6010B	
Zinc	27	1.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB3-SGS-20-20.5

**Laboratory ID:** T141169-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	270	1.0		mg/kg	EPA 6010B	
Chromium	20	2.0		mg/kg	EPA 6010B	
Cobalt	7.9	2.0		mg/kg	EPA 6010B	
Copper	36	1.0		mg/kg	EPA 6010B	
Lead	6.3	3.0		mg/kg	EPA 6010B	
Nickel	13	2.0		mg/kg	EPA 6010B	
Vanadium	38	5.0		mg/kg	EPA 6010B	
Zinc	58	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB3-SGS-25.5-26

**Laboratory ID:** T141169-05

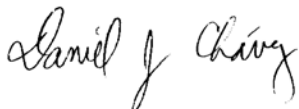
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	180	1.0		mg/kg	EPA 6010B	
Chromium	22	2.0		mg/kg	EPA 6010B	
Cobalt	10	2.0		mg/kg	EPA 6010B	
Copper	25	1.0		mg/kg	EPA 6010B	
Lead	4.7	3.0		mg/kg	EPA 6010B	
Nickel	20	2.0		mg/kg	EPA 6010B	
Vanadium	41	5.0		mg/kg	EPA 6010B	
Zinc	69	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB3-SGS-30-30.5

**Laboratory ID:** T141169-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	69	1.0		mg/kg	EPA 6010B	
Chromium	18	2.0		mg/kg	EPA 6010B	
Cobalt	8.3	2.0		mg/kg	EPA 6010B	
Copper	19	1.0		mg/kg	EPA 6010B	
Nickel	16	2.0		mg/kg	EPA 6010B	
Vanadium	31	5.0		mg/kg	EPA 6010B	
Zinc	51	1.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB2-SGS-5-5.5

**Laboratory ID:** T141169-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
C13-C28 (DRO)	78	10		mg/kg	EPA 8015C	
C29-C40 (MORO)	1800	10		mg/kg	EPA 8015C	
Barium	800	1.0		mg/kg	EPA 6010B	
Cadmium	3.0	2.0		mg/kg	EPA 6010B	
Chromium	19	2.0		mg/kg	EPA 6010B	
Cobalt	3.1	2.0		mg/kg	EPA 6010B	
Copper	14	1.0		mg/kg	EPA 6010B	
Lead	1400	3.0		mg/kg	EPA 6010B	
Nickel	4.3	2.0		mg/kg	EPA 6010B	
Vanadium	14	5.0		mg/kg	EPA 6010B	
Zinc	1100	1.0		mg/kg	EPA 6010B	
Mercury	0.19	0.10		mg/kg	EPA 7471A Soil	

**Sample ID:** LB2-SGS-10.5-11

**Laboratory ID:** T141169-08

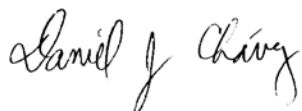
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	93	1.0		mg/kg	EPA 6010B	
Chromium	15	2.0		mg/kg	EPA 6010B	
Cobalt	6.3	2.0		mg/kg	EPA 6010B	
Copper	64	1.0		mg/kg	EPA 6010B	
Lead	4.0	3.0		mg/kg	EPA 6010B	
Nickel	6.0	2.0		mg/kg	EPA 6010B	
Vanadium	27	5.0		mg/kg	EPA 6010B	
Zinc	77	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB2-SGS-15-15.5

**Laboratory ID:** T141169-09

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	110	1.0		mg/kg	EPA 6010B	
Chromium	18	2.0		mg/kg	EPA 6010B	
Cobalt	7.0	2.0		mg/kg	EPA 6010B	
Copper	67	1.0		mg/kg	EPA 6010B	
Lead	32	3.0		mg/kg	EPA 6010B	
Nickel	9.2	2.0		mg/kg	EPA 6010B	
Vanadium	25	5.0		mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB2-SGS-15-15.5

**Laboratory ID:** T141169-09

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Zinc	120	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB2-SGS-20-20.5

**Laboratory ID:** T141169-10

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	43	1.0	mg/kg	EPA 6010B	
Chromium	3.9	2.0	mg/kg	EPA 6010B	
Cobalt	3.7	2.0	mg/kg	EPA 6010B	
Copper	15	1.0	mg/kg	EPA 6010B	
Nickel	4.4	2.0	mg/kg	EPA 6010B	
Vanadium	13	5.0	mg/kg	EPA 6010B	
Zinc	28	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB2-SGS-25.5-26

**Laboratory ID:** T141169-11

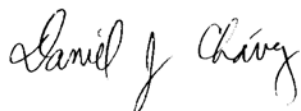
Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	68	1.0	mg/kg	EPA 6010B	
Chromium	21	2.0	mg/kg	EPA 6010B	
Cobalt	11	2.0	mg/kg	EPA 6010B	
Copper	27	1.0	mg/kg	EPA 6010B	
Lead	5.6	3.0	mg/kg	EPA 6010B	
Nickel	18	2.0	mg/kg	EPA 6010B	
Vanadium	40	5.0	mg/kg	EPA 6010B	
Zinc	61	1.0	mg/kg	EPA 6010B	
Mercury	0.10	0.10	mg/kg	EPA 7471A Soil	

**Sample ID:** LB2-SGS-30-30.5

**Laboratory ID:** T141169-12

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	66	1.0	mg/kg	EPA 6010B	
Chromium	20	2.0	mg/kg	EPA 6010B	
Cobalt	8.7	2.0	mg/kg	EPA 6010B	
Copper	59	1.0	mg/kg	EPA 6010B	
Lead	4.7	3.0	mg/kg	EPA 6010B	

SunStar Laboratories, Inc.



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB2-SGS-30-30.5

**Laboratory ID:** T141169-12

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Nickel	17	2.0		mg/kg	EPA 6010B	
Vanadium	35	5.0		mg/kg	EPA 6010B	
Zinc	72	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB1-SGS-5.5-6

**Laboratory ID:** T141169-13

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	72	1.0		mg/kg	EPA 6010B	
Copper	20	1.0		mg/kg	EPA 6010B	
Lead	8.2	3.0		mg/kg	EPA 6010B	
Vanadium	8.0	5.0		mg/kg	EPA 6010B	
Zinc	19	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB1-SGS-10.5-11

**Laboratory ID:** T141169-14

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	110	1.0		mg/kg	EPA 6010B	
Chromium	12	2.0		mg/kg	EPA 6010B	
Cobalt	7.9	2.0		mg/kg	EPA 6010B	
Copper	26	1.0		mg/kg	EPA 6010B	
Nickel	7.6	2.0		mg/kg	EPA 6010B	
Vanadium	26	5.0		mg/kg	EPA 6010B	
Zinc	47	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB1-SGS-15-15.5

**Laboratory ID:** T141169-15

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	250	1.0		mg/kg	EPA 6010B	
Chromium	9.2	2.0		mg/kg	EPA 6010B	
Cobalt	3.6	2.0		mg/kg	EPA 6010B	
Copper	15	1.0		mg/kg	EPA 6010B	
Lead	77	3.0		mg/kg	EPA 6010B	
Nickel	4.5	2.0		mg/kg	EPA 6010B	
Vanadium	16	5.0		mg/kg	EPA 6010B	

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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB1-SGS-15-15.5

**Laboratory ID:** T141169-15

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Zinc	51	1.0		mg/kg	EPA 6010B	
Mercury	0.14	0.10		mg/kg	EPA 7471A Soil	

**Sample ID:** LB1-SGS-20.5-21

**Laboratory ID:** T141169-16

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	69	1.0		mg/kg	EPA 6010B	
Chromium	6.8	2.0		mg/kg	EPA 6010B	
Cobalt	3.5	2.0		mg/kg	EPA 6010B	
Copper	37	1.0		mg/kg	EPA 6010B	
Nickel	2.8	2.0		mg/kg	EPA 6010B	
Vanadium	13	5.0		mg/kg	EPA 6010B	
Zinc	45	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB1-SGS-25-25.5

**Laboratory ID:** T141169-17

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	71	1.0		mg/kg	EPA 6010B	
Chromium	16	2.0		mg/kg	EPA 6010B	
Cobalt	7.0	2.0		mg/kg	EPA 6010B	
Copper	16	1.0		mg/kg	EPA 6010B	
Lead	3.2	3.0		mg/kg	EPA 6010B	
Nickel	13	2.0		mg/kg	EPA 6010B	
Vanadium	26	5.0		mg/kg	EPA 6010B	
Zinc	42	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB1-SGS-30.5-31

**Laboratory ID:** T141169-18

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	61	1.0		mg/kg	EPA 6010B	
Chromium	19	2.0		mg/kg	EPA 6010B	
Cobalt	8.0	2.0		mg/kg	EPA 6010B	
Copper	32	1.0		mg/kg	EPA 6010B	
Lead	3.0	3.0		mg/kg	EPA 6010B	

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32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

**Sample ID:** LB1-SGS-30.5-31

**Laboratory ID:** T141169-18

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Nickel	16	2.0	mg/kg	EPA 6010B	
Vanadium	33	5.0	mg/kg	EPA 6010B	
Zinc	60	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB1-SGS-GW

**Laboratory ID:** T141169-19

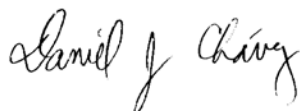
Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	590	50	ug/l	EPA 6010B	
Copper	150	50	ug/l	EPA 6010B	
Total Hardness	2500	1.0	mg/l	EPA 130.2	
pH	7.2	0.10	pH Units	SM4500	
Total Dissolved Solids	610	55	mg/l	EPA 160.1	
Fluoride	0.544	0.500	mg/l	EPA 300.0	
Chloride	74.5	10.0	mg/l	EPA 300.0	
Sulfate as SO4	197	50.0	mg/l	EPA 300.0	
Nitrate as NO3	10.2	2.50	mg/l	EPA 300.0	

**Sample ID:** TRIP BLANK

**Laboratory ID:** T141169-20

No Results Detected

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB3-SGS-5.5-6**  
**T141169-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		90.9 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>110</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/10/14	"	
Cadmium	ND	2.0	"	"	"	"	06/10/14	"	
<b>Chromium</b>	<b>17</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>11</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>35</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>34</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>15</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>38</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>74</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-5.5-6**  
**T141169-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-5.5-6**  
**T141169-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		151 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		102 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB3-SGS-10.5-11**  
**T141169-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>91.9 %</i>	<i>65-135</i>						

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>130</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>18</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>12</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>14</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>4.1</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>13</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>50</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>54</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	<b>0.10</b>	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-10.5-11**  
**T141169-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-10.5-11**  
**T141169-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		152 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		99.5 %	85.5-116		"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:35
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**LB3-SGS-15.5-16**  
**T141169-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		95.0 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>32</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>4.2</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.3</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>14</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.2</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>13</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>27</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-15.5-16**  
**T141169-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-15.5-16**  
**T141169-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		160 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		100 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB3-SGS-20-20.5**  
**T141169-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.2 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>270</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>20</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>7.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>36</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>6.3</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>13</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>38</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>58</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

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 06/12/14 16:35

**LB3-SGS-20-20.5**  
**T141169-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-20-20.5**  
**T141169-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		164 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		94.9 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB3-SGS-25.5-26**  
**T141169-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.4 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>180</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>22</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>10</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>25</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>4.7</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>20</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>41</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>69</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-25.5-26**  
**T141169-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-25.5-26**  
**T141169-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		156 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		97.2 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB3-SGS-30-30.5**  
**T141169-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.0 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>69</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/10/14	"	
Cadmium	ND	2.0	"	"	"	"	06/10/14	"	
<b>Chromium</b>	<b>18</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.3</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>19</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>16</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>31</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>51</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-30-30.5**  
**T141169-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB3-SGS-30-30.5**  
**T141169-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		138 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		106 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB2-SGS-5-5.5**  
**T141169-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
<b>C13-C28 (DRO)</b>	<b>78</b>	10	"	"	"	"	"	"	
<b>C29-C40 (MORO)</b>	<b>1800</b>	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		97.9 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>800</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
<b>Cadmium</b>	<b>3.0</b>	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>19</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.1</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>14</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>1400</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.3</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>14</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>1100</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

<b>Mercury</b>	<b>0.19</b>	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

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 06/12/14 16:35

**LB2-SGS-5-5.5**  
**T141169-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-5-5.5**  
**T141169-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.6 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		165 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		93.5 %	85.5-116		"	"	"	"	

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Daniel Chavez, Project Manager





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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB2-SGS-10.5-11**  
**T141169-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>91.6 %</i>	<i>65-135</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>93</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>15</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>6.3</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>64</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>4.0</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>6.0</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>27</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>77</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-10.5-11**  
**T141169-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-10.5-11**  
**T141169-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		165 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		97.6 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:35
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**LB2-SGS-15-15.5**  
**T141169-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		95.1 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>110</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>18</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>7.0</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>67</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>32</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>9.2</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>25</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>120</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-15-15.5**  
**T141169-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-15-15.5**  
**T141169-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		110 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		104 %	85.5-116		"	"	"	"	

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**LB2-SGS-20-20.5**  
**T141169-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		91.9 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>43</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/10/14	"	
Cadmium	ND	2.0	"	"	"	"	06/10/14	"	
<b>Chromium</b>	<b>3.9</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.7</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>15</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.4</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>13</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>28</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-20-20.5**  
**T141169-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-20-20.5**  
**T141169-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		144 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		110 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:35
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**LB2-SGS-25.5-26**  
**T141169-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>91.3 %</i>	<i>65-135</i>		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>68</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/10/14	"	
Cadmium	ND	2.0	"	"	"	"	06/10/14	"	
<b>Chromium</b>	<b>21</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>11</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>27</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>5.6</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>18</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>40</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>61</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	<b>0.10</b>	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-25.5-26**  
**T141169-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-25.5-26**  
**T141169-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		165 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		96.4 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:35
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**LB2-SGS-30-30.5**  
**T141169-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		93.2 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>66</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>20</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.7</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>59</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>4.7</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>17</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>35</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>72</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-30-30.5**  
**T141169-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB2-SGS-30-30.5**  
**T141169-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.3 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		163 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		80.6 %	85.5-116		"	"	"	"	S-GC

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**LB1-SGS-5.5-6**  
**T141169-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		86.7 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>72</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	ND	2.0	"	"	"	"	"	"	
Cobalt	ND	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>20</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>8.2</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	ND	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>8.0</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>19</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-5.5-6**  
**T141169-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
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**LB1-SGS-5.5-6**  
**T141169-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		123 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		106 %	85.5-116		"	"	"	"	

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**LB1-SGS-10.5-11**  
**T141169-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.6 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>110</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>12</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>7.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>26</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>7.6</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>26</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>47</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

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**LB1-SGS-10.5-11**  
**T141169-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
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**LB1-SGS-10.5-11**  
**T141169-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		180 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		95.6 %	85.5-116		"	"	"	"	

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**LB1-SGS-15-15.5**  
**T141169-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		92.5 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>250</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>9.2</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.6</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>15</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>77</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.5</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>16</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>51</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	<b>0.14</b>	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-15-15.5**  
**T141169-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-15-15.5**  
**T141169-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.9 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		158 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		93.0 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB1-SGS-20.5-21**  
**T141169-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		<i>94.0 %</i>	<i>65-135</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>69</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/10/14	"	
Cadmium	ND	2.0	"	"	"	"	06/10/14	"	
<b>Chromium</b>	<b>6.8</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>3.5</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>37</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>2.8</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>13</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>45</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-20.5-21**  
**T141169-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-20.5-21**  
**T141169-16 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		171 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		85.3 %	85.5-116		"	"	"	"	S-GC

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:35
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**LB1-SGS-25-25.5**  
**T141169-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		97.6 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>71</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/10/14	"	
Cadmium	ND	2.0	"	"	"	"	06/10/14	"	
<b>Chromium</b>	<b>16</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>7.0</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>16</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>3.2</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>13</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>26</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>42</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-25-25.5**  
**T141169-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-25-25.5**  
**T141169-17 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		74.4 %	81.2-123		"	"	"	"	S-GC
Surrogate: Dibromofluoromethane		137 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		98.1 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB1-SGS-30.5-31**  
**T141169-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061019	06/10/14	06/11/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		95.6 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061022	06/10/14	06/10/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>61</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>19</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.0</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>32</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>3.0</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>16</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>33</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>60</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061021	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-30.5-31**  
**T141169-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-30.5-31**  
**T141169-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061029	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		166 %	95.7-135		"	"	"	"	S-GC
Surrogate: Toluene-d8		165 %	85.5-116		"	"	"	"	S-GC

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**LB1-SGS-GW**  
**T141169-19 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	0.50	mg/l	1	4060921	06/11/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	0.50	"	"	"	"	"	"	
C29-C40 (MORO)	ND	0.50	"	"	"	"	"	"	
Surrogate: p-Terphenyl		86.4 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	50	ug/l	1	4061024	06/10/14	06/11/14	EPA 6010B	
Silver	ND	50	"	"	"	"	"	"	
Arsenic	ND	50	"	"	"	"	"	"	
<b>Barium</b>	<b>590</b>	50	"	"	"	"	"	"	
Beryllium	ND	50	"	"	"	"	"	"	
Cadmium	ND	50	"	"	"	"	"	"	
Chromium	ND	50	"	"	"	"	"	"	
Cobalt	ND	50	"	"	"	"	"	"	
<b>Copper</b>	<b>150</b>	50	"	"	"	"	"	"	
Lead	ND	50	"	"	"	"	"	"	
Molybdenum	ND	50	"	"	"	"	"	"	
Nickel	ND	50	"	"	"	"	"	"	
Selenium	ND	50	"	"	"	"	"	"	
Thallium	ND	50	"	"	"	"	"	"	
Vanadium	ND	50	"	"	"	"	"	"	
Zinc	ND	50	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.50	ug/l	1	4061025	06/10/14	06/10/14	EPA 7470A Water	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-GW**  
**T141169-19 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	1.0	ug/l	1	4061028	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**LB1-SGS-GW**  
**T141169-19 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	0.50	ug/l	1	4061028	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	83.5-119		"	"	"	"	
Surrogate: Dibromofluoromethane		117 %	81-136		"	"	"	"	
Surrogate: Toluene-d8		103 %	88.8-117		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:35
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**LB1-SGS-GW  
T141169-19 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods**

Salinity	ND	2.00	ppt	1	4061020	06/10/14	06/11/14	SM2510b mod.	
<b>Total Hardness</b>	<b>2500</b>	1.0	mg/l	"	4061026	06/10/14	06/10/14	EPA 130.2	
<b>pH</b>	<b>7.2</b>	0.10	pH Units	"	4060941	06/09/14	06/09/14	SM4500	
<b>Total Dissolved Solids</b>	<b>610</b>	55	mg/l	"	4060618	06/10/14	06/11/14	EPA 160.1	

**Anions by EPA Method 300.0**

<b>Fluoride</b>	<b>0.544</b>	0.500	mg/l	1	4061015	06/10/14	06/10/14	EPA 300.0	
<b>Chloride</b>	<b>74.5</b>	10.0	"	"	"	"	"	"	
<b>Sulfate as SO4</b>	<b>197</b>	50.0	"	5	"	"	06/10/14	"	
Bromide	ND	1.25	"	1	"	"	06/10/14	"	
Nitrite as NO2	ND	0.500	"	"	"	"	"	"	
<b>Nitrate as NO3</b>	<b>10.2</b>	2.50	"	5	"	"	06/10/14	"	
Phosphate, Total as Orthophosphate	ND	0.500	"	1	"	"	06/10/14	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
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**TRIP BLANK**  
**T141169-20 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	1.0	ug/l	1	4061028	06/10/14	06/11/14	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**TRIP BLANK**  
**T141169-20 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	0.50	ug/l	1	4061028	06/10/14	06/11/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	83.5-119		"	"	"	"	
Surrogate: Dibromofluoromethane		112 %	81-136		"	"	"	"	
Surrogate: Toluene-d8		100 %	88.8-117		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4060921 - EPA 3510C GC**

**Blank (4060921-BLK1)**

Prepared: 06/09/14 Analyzed: 06/12/14

C6-C12 (GRO)	ND	0.50	mg/l							
C13-C28 (DRO)	ND	0.50	"							
C29-C40 (MORO)	ND	0.50	"							
Surrogate: <i>p</i> -Terphenyl	3.44		"	4.00		86.0	65-135			

**LCS (4060921-BS1)**

Prepared: 06/09/14 Analyzed: 06/12/14

C13-C28 (DRO)	17.3	0.50	mg/l	20.0		86.3	75-125			
Surrogate: <i>p</i> -Terphenyl	3.36		"	4.00		83.9	65-135			

**Matrix Spike (4060921-MS1)**

Source: T141158-01

Prepared: 06/09/14 Analyzed: 06/12/14

C13-C28 (DRO)	17.7	0.50	mg/l	20.0	ND	88.7	75-125			
Surrogate: <i>p</i> -Terphenyl	3.45		"	4.00		86.2	65-135			

**Matrix Spike Dup (4060921-MSD1)**

Source: T141158-01

Prepared: 06/09/14 Analyzed: 06/12/14

C13-C28 (DRO)	18.4	0.50	mg/l	20.0	ND	92.2	75-125	3.78	20	
Surrogate: <i>p</i> -Terphenyl	3.47		"	4.00		86.7	65-135			

**Batch 4061019 - EPA 3550B GC**

**Blank (4061019-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: <i>p</i> -Terphenyl	93.2		"	100		93.2	65-135			

**LCS (4061019-BS1)**

Prepared: 06/10/14 Analyzed: 06/11/14

C13-C28 (DRO)	470	10	mg/kg	500		93.8	75-125			
Surrogate: <i>p</i> -Terphenyl	92.6		"	100		92.6	65-135			

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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061019 - EPA 3550B GC**

<b>Matrix Spike (4061019-MS1)</b>		<b>Source: T141169-01</b>		Prepared: 06/10/14		Analyzed: 06/11/14			
C13-C28 (DRO)	460	10	mg/kg	500	ND	91.7	75-125		
Surrogate: <i>p</i> -Terphenyl	97.6		"	100		97.6	65-135		
<b>Matrix Spike Dup (4061019-MSD1)</b>		<b>Source: T141169-01</b>		Prepared: 06/10/14		Analyzed: 06/11/14			
C13-C28 (DRO)	460	10	mg/kg	500	ND	92.8	75-125	1.20	20
Surrogate: <i>p</i> -Terphenyl	96.6		"	100		96.6	65-135		

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061022 - EPA 3051**

**Blank (4061022-BLK1)**

Prepared & Analyzed: 06/10/14

Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							

**LCS (4061022-BS1)**

Prepared & Analyzed: 06/10/14

Arsenic	113	5.0	mg/kg	100		113	75-125			
Barium	104	1.0	"	100		104	75-125			
Cadmium	103	2.0	"	100		103	75-125			
Chromium	102	2.0	"	100		102	75-125			
Lead	103	3.0	"	100		103	75-125			

**Matrix Spike (4061022-MS1)**

Source: T141169-01

Prepared & Analyzed: 06/10/14

Arsenic	106	5.0	mg/kg	100	ND	106	75-125			
Barium	233	1.0	"	100	111	122	75-125			
Cadmium	98.7	2.0	"	100	0.662	98.1	75-125			
Chromium	116	2.0	"	100	17.0	99.5	75-125			
Lead	105	3.0	"	100	33.9	70.7	75-125			

QM-05

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 Project Manager: Keith Gilbert

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**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061022 - EPA 3051**

Matrix Spike Dup (4061022-MSD1)	Source: T141169-01			Prepared & Analyzed: 06/10/14						
Arsenic	98.9	5.0	mg/kg	100	ND	98.9	75-125	7.40	20	
Barium	202	1.0	"	100	111	91.3	75-125	14.2	20	
Cadmium	90.6	2.0	"	100	0.662	90.0	75-125	8.57	20	
Chromium	108	2.0	"	100	17.0	91.3	75-125	7.24	20	
Lead	102	3.0	"	100	33.9	68.6	75-125	2.02	20	QM-05

**Batch 4061024 - EPA 3010A**

Blank (4061024-BLK1)	Prepared: 06/10/14 Analyzed: 06/11/14									
Antimony	ND	50	ug/l							
Silver	ND	50	"							
Arsenic	ND	50	"							
Barium	ND	50	"							
Beryllium	ND	50	"							
Cadmium	ND	50	"							
Chromium	ND	50	"							
Cobalt	ND	50	"							
Copper	ND	50	"							
Lead	ND	50	"							
Molybdenum	ND	50	"							
Nickel	ND	50	"							
Selenium	ND	50	"							
Thallium	ND	50	"							
Vanadium	ND	50	"							
Zinc	ND	50	"							

LCS (4061024-BS1)	Prepared: 06/10/14 Analyzed: 06/11/14									
Arsenic	568	50	ug/l	500		114	75-125			
Barium	527	50	"	500		105	75-125			
Cadmium	520	50	"	500		104	75-125			
Chromium	514	50	"	500		103	75-125			
Lead	527	50	"	500		105	75-125			

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 Project Manager: Keith Gilbert

Reported:  
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**Metals by EPA 6010B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061024 - EPA 3010A**

**Matrix Spike (4061024-MS1)**

Source: T141169-19

Prepared: 06/10/14

Analyzed: 06/11/14

Arsenic	585	50	ug/l	500	26.7	112	75-125			
Barium	1080	50	"	500	589	99.2	75-125			
Cadmium	483	50	"	500	ND	96.6	75-125			
Chromium	498	50	"	500	37.1	92.3	75-125			
Lead	471	50	"	500	ND	94.2	75-125			

**Matrix Spike Dup (4061024-MSD1)**

Source: T141169-19

Prepared: 06/10/14

Analyzed: 06/11/14

Arsenic	604	50	ug/l	500	26.7	116	75-125	3.19	20	
Barium	1110	50	"	500	589	104	75-125	2.39	20	
Cadmium	482	50	"	500	ND	96.4	75-125	0.225	20	
Chromium	498	50	"	500	37.1	92.2	75-125	0.112	20	
Lead	483	50	"	500	ND	96.6	75-125	2.52	20	

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**Cold Vapor Extraction EPA 7470/7471 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061021 - EPA 7471A Soil**

<b>Blank (4061021-BLK1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	ND	0.10	mg/kg							
<b>LCS (4061021-BS1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	0.343	0.10	mg/kg	0.417		82.3	80-120			
<b>Matrix Spike (4061021-MS1)</b>				<b>Source: T141169-01</b>		Prepared & Analyzed: 06/10/14				
Mercury	0.314	0.10	mg/kg	0.417	ND	75.5	75-125			
<b>Matrix Spike Dup (4061021-MSD1)</b>				<b>Source: T141169-01</b>		Prepared & Analyzed: 06/10/14				
Mercury	0.316	0.10	mg/kg	0.417	ND	75.8	75-125	0.445	20	

**Batch 4061025 - EPA 7470A Water**

<b>Blank (4061025-BLK1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	ND	0.50	ug/l							
<b>LCS (4061025-BS1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	4.69	0.50	ug/l	5.00		93.7	75-125			
<b>Matrix Spike (4061025-MS1)</b>				<b>Source: T141169-19</b>		Prepared & Analyzed: 06/10/14				
Mercury	4.55	0.50	ug/l	5.00	ND	90.9	75-125			
<b>Matrix Spike Dup (4061025-MSD1)</b>				<b>Source: T141169-19</b>		Prepared & Analyzed: 06/10/14				
Mercury	4.54	0.50	ug/l	5.00	ND	90.8	75-125	0.182	20	

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061028 - EPA 5030 GCMS**

**Blank (4061028-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Bromobenzene	ND	1.0	ug/l							
Bromochloromethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
Bromoform	ND	1.0	"							
Bromomethane	ND	1.0	"							
n-Butylbenzene	ND	1.0	"							
sec-Butylbenzene	ND	1.0	"							
tert-Butylbenzene	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	1.0	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	1.0	"							
Chloromethane	ND	1.0	"							
2-Chlorotoluene	ND	1.0	"							
4-Chlorotoluene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	1.0	"							
Dibromomethane	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
Dichlorodifluoromethane	ND	0.50	"							
1,1-Dichloroethane	ND	1.0	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
trans-1,2-Dichloroethene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
1,3-Dichloropropane	ND	1.0	"							
2,2-Dichloropropane	ND	1.0	"							
1,1-Dichloropropene	ND	1.0	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Hexachlorobutadiene	ND	1.0	"							
Isopropylbenzene	ND	1.0	"							

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061028 - EPA 5030 GCMS**

**Blank (4061028-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

p-Isopropyltoluene	ND	1.0	ug/l							
Methylene chloride	ND	1.0	"							
Naphthalene	ND	1.0	"							
n-Propylbenzene	ND	1.0	"							
Styrene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	1.0	"							
Tetrachloroethene	ND	1.0	"							
1,2,3-Trichlorobenzene	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Trichloroethene	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
Vinyl chloride	ND	1.0	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.50	"							
Surrogate: 4-Bromofluorobenzene	8.12		"	8.00		102	83.5-119			
Surrogate: Dibromofluoromethane	8.50		"	8.00		106	81-136			
Surrogate: Toluene-d8	8.27		"	8.00		103	88.8-117			

**LCS (4061028-BS1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Chlorobenzene	18.4	1.0	ug/l	20.0		92.0	75-125			
1,1-Dichloroethene	19.8	1.0	"	20.0		98.9	75-125			
Trichloroethene	16.5	1.0	"	20.0		82.6	75-125			
Benzene	19.8	0.50	"	20.0		99.0	75-125			
Toluene	16.6	0.50	"	20.0		82.8	75-125			
Surrogate: 4-Bromofluorobenzene	7.82		"	8.00		97.8	83.5-119			
Surrogate: Dibromofluoromethane	10.7		"	8.00		134	81-136			
Surrogate: Toluene-d8	7.39		"	8.00		92.4	88.8-117			

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061028 - EPA 5030 GCMS**

**LCS Dup (4061028-BSD1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Chlorobenzene	17.4	1.0	ug/l	20.0		86.8	75-125	5.87	20	
1,1-Dichloroethene	20.3	1.0	"	20.0		102	75-125	2.74	20	
Trichloroethene	18.2	1.0	"	20.0		91.0	75-125	9.62	20	
Benzene	20.9	0.50	"	20.0		104	75-125	5.36	20	
Toluene	17.8	0.50	"	20.0		88.8	75-125	7.05	20	
Surrogate: 4-Bromofluorobenzene	7.75		"	8.00		96.9	83.5-119			
Surrogate: Dibromofluoromethane	10.2		"	8.00		128	81-136			
Surrogate: Toluene-d8	7.46		"	8.00		93.2	88.8-117			

**Batch 4061029 - EPA 5030 GCMS**

**Blank (4061029-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Bromobenzene	ND	5.0	ug/kg							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager





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Langan Engineering & Environmental Services  
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061029 - EPA 5030 GCMS**

**Blank (4061029-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

1,2-Dichloroethane	ND	5.0	ug/kg							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061029 - EPA 5030 GCMS**

**Blank (4061029-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Surrogate: 4-Bromofluorobenzene	40.0		ug/kg	40.0		100	81.2-123			
Surrogate: Dibromofluoromethane	52.3		"	40.0		131	95.7-135			
Surrogate: Toluene-d8	39.4		"	40.0		98.5	85.5-116			

**LCS (4061029-BS1)**

Prepared & Analyzed: 06/10/14

Chlorobenzene	93.6	5.0	ug/kg	100		93.6	75-125			
1,1-Dichloroethene	87.6	5.0	"	100		87.6	75-125			
Trichloroethene	84.7	5.0	"	100		84.7	75-125			
Benzene	104	5.0	"	100		104	75-125			
Toluene	96.4	5.0	"	100		96.4	75-125			
Surrogate: 4-Bromofluorobenzene	41.8		"	40.0		104	81.2-123			
Surrogate: Dibromofluoromethane	53.6		"	40.0		134	95.7-135			
Surrogate: Toluene-d8	40.0		"	40.0		99.9	85.5-116			

**Matrix Spike (4061029-MS1)**

Source: T141169-01

Prepared: 06/10/14 Analyzed: 06/11/14

Chlorobenzene	95.7	5.0	ug/kg	100	ND	95.7	75-125			
1,1-Dichloroethene	108	5.0	"	100	ND	108	75-125			
Trichloroethene	88.8	5.0	"	100	ND	88.8	75-125			
Benzene	114	5.0	"	100	ND	114	75-125			
Toluene	81.4	5.0	"	100	ND	81.4	75-125			
Surrogate: 4-Bromofluorobenzene	42.0		"	40.0		105	81.2-123			
Surrogate: Dibromofluoromethane	53.0		"	40.0		133	95.7-135			
Surrogate: Toluene-d8	36.8		"	40.0		91.9	85.5-116			

**Matrix Spike Dup (4061029-MSD1)**

Source: T141169-01

Prepared: 06/10/14 Analyzed: 06/11/14

Chlorobenzene	86.2	5.0	ug/kg	99.8	ND	86.4	75-125	10.5	20	
1,1-Dichloroethene	94.4	5.0	"	99.8	ND	94.6	75-125	13.6	20	
Trichloroethene	80.3	5.0	"	99.8	ND	80.5	75-125	10.0	20	
Benzene	95.9	5.0	"	99.8	ND	96.0	75-125	17.4	20	
Toluene	80.4	5.0	"	99.8	ND	80.6	75-125	1.19	20	
Surrogate: 4-Bromofluorobenzene	41.1		"	39.9		103	81.2-123			
Surrogate: Dibromofluoromethane	51.4		"	39.9		129	95.7-135			
Surrogate: Toluene-d8	36.8		"	39.9		92.3	85.5-116			

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:35

**Conventional Chemistry Parameters by APHA/EPA/ASTM Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4060618 - General Preparation**

<b>Blank (4060618-BLK1)</b>		Prepared: 06/06/14 Analyzed: 06/11/14								
Total Dissolved Solids	ND	55	mg/l							
<b>Duplicate (4060618-DUP1)</b>		Source: T141153-01 Prepared: 06/06/14 Analyzed: 06/11/14								
Total Dissolved Solids	687	55	mg/l		726			5.52	5	QR-05

**Batch 4060941 - General Preparation**

<b>Duplicate (4060941-DUP1)</b>		Source: T141169-19 Prepared & Analyzed: 06/09/14								
pH	7.23	0.10	pH Units		7.25			0.276	20	

**Batch 4061020 - General Preparation**

<b>Duplicate (4061020-DUP1)</b>		Source: T141169-19 Prepared: 06/10/14 Analyzed: 06/11/14								
Salinity	ND	2.00	ppt		ND				20	

**Batch 4061026 - EPA 3010A**

<b>Blank (4061026-BLK1)</b>		Prepared & Analyzed: 06/10/14								
Total Hardness	ND	1.0	mg/l							
<b>Duplicate (4061026-DUP1)</b>		Source: T141169-19 Prepared & Analyzed: 06/10/14								
Total Hardness	2530	1.0	mg/l		2520			0.515	20	

SunStar Laboratories, Inc.

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:35

**Anions by EPA Method 300.0 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061015 - General Preparation**

**Blank (4061015-BLK1)**

Prepared & Analyzed: 06/10/14

Fluoride	ND	0.500	mg/l							
Chloride	ND	10.0	"							
Nitrite as NO2	ND	0.500	"							
Sulfate as SO4	ND	10.0	"							
Bromide	ND	1.25	"							
Nitrate as NO3	ND	0.500	"							
Phosphate, Total as Orthophosphate	ND	0.500	"							

**LCS (4061015-BS1)**

Prepared & Analyzed: 06/10/14

Chloride	9.90	10.0	mg/l	10.0		99.0	75-125			
Sulfate as SO4	9.86	10.0	"	10.0		98.6	75-125			
Nitrate as NO3	0.544	0.500	"	0.500		109	75-125			

**Matrix Spike (4061015-MS1)**

Source: T141169-19

Prepared & Analyzed: 06/10/14

Chloride	82.8	10.0	mg/l	10.0	74.5	83.1	75-125			
Sulfate as SO4	180	10.0	"	10.0	197	NR	75-125			QM-4X
Nitrate as NO3	10.3	0.500	"	0.500	10.2	19.8	75-125			QM-4X

**Matrix Spike Dup (4061015-MSD1)**

Source: T141169-19

Prepared & Analyzed: 06/10/14

Chloride	82.2	10.0	mg/l	10.0	74.5	77.4	75-125	0.691	20	
Sulfate as SO4	179	10.0	"	10.0	197	NR	75-125	0.664	20	QM-4X
Nitrate as NO3	10.2	0.500	"	0.500	10.2	3.00	75-125	0.820	20	QM-4X

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:35

### Notes and Definitions

- S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- QR-05 The RPD between the sample and sample duplicate was outside control limits. The lack of reproducibility may be attributed to the sample matrix.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

SunStar Laboratories, Inc.



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Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Langdon  
 Address: 37 Executive Park #130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 6/9/2014 Page: 1 Of 2  
 Project Name: 444 & Hill Phase II ESA  
 Collector: Rachel Rehoreff Client Project #: 70036602  
 Batch #: 7/4/169 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LR3-SGS-5.5'-6'	6/9/14	7:40	Soil	6" sleeve	X	X	X	X	X	X	X	X	X	01		1
LR3-SGS-10.5'-11'	6/9/14	7:46	Soil		X	X	X	X	X	X	X	X	X	02		1
LR3-SGS-15.5'-16'	6/9/14	7:53	Soil		X	X	X	X	X	X	X	X	X	03		1
LR3-SGS-20'-20.5'	6/9/14	8:01	Soil		X	X	X	X	X	X	X	X	X	04		1
LR3-SGS-25.5'-26'	6/9/14	8:43	Soil		X	X	X	X	X	X	X	X	X	05		1
LR3-SGS-30'-30.5'	6/9/14	8:50	Soil		X	X	X	X	X	X	X	X	X	06		1
LR2-SGS-5'-5.5'		9:56			X	X	X	X	X	X	X	X	X	07		1
LR2-SGS-10.5'-11'		10:01			X	X	X	X	X	X	X	X	X	08		1
LR2-SGS-15'-15.5'		10:05			X	X	X	X	X	X	X	X	X	09		1
LR2-SGS-20'-20.5'		10:15			X	X	X	X	X	X	X	X	X	10		1
LR2-SGS-25.5'-26'		10:38			X	X	X	X	X	X	X	X	X	11		1
LR2-SGS-30'-30.5'		10:45			X	X	X	X	X	X	X	X	X	12		1
LR1-SGS-5.5'-6'		11:53			X	X	X	X	X	X	X	X	X	13		1
LR1-SGS-10.5'-11'		11:58			X	X	X	X	X	X	X	X	X	14		1
LR1-SGS-15'-15.5'		12:07			X	X	X	X	X	X	X	X	X	15		1
Relinquished by: (signature) <u>Rachel Rehoreff</u> Date / Time <u>6/9 4:00AM</u>			Received by: (signature) <u>[Signature]</u> Date / Time <u>6:24 8:00</u>													
Relinquished by: (signature) _____ Date / Time _____			Received by: (signature) _____ Date / Time _____													
Relinquished by: (signature) _____ Date / Time _____			Received by: (signature) _____ Date / Time _____													

Chain of Custody seals Y/N (X)  
 Seals intact? Y/N (X)  
 Received good condition/cold 5.0

Turn around time: 2 days

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_

Return to client \_\_\_\_\_

Pickup \_\_\_\_\_

COC 131689

**Chain of Custody Record**

SunStar Laboratories, Inc.  
 25712 Commerce Centre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Lanigan  
 Address: 32 Executive Park #130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilder

Date: 6/9/2014 Page: 2 of 2  
 Project Name: 4th Hill Phase II ESA  
 Collector: Rachel Prohaska Client Project #: 700036602  
 Batch #: 7/4/189 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260 B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	pH, Hardness, TDS 300IC Salinity	Laboratory ID #	Comments/Preservative	Total # of containers
LB1-SGS-205-21	6/9/14	12:14	Soil	6.5 liter	X							X	X		16		1
LB1-SGS-151-255	6/9/14	12:21	Soil	↓	X							X	X		17		1
LB1-SGS-205-31	6/9/14	12:29	GW	VASTOAYS	X							X	X		18		1
LB1-SGS-GW	6/9/14	13:20	GW	VASTOAYS	X							X	X		19		12
TRIP BLANK	6/9/14	13:20	GW	VASTOAYS	X							X	X		20		2
Relinquished by: (signature) <u>Rachel Prohaska</u> Date / Time <u>6/9/14 4:00PM</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time <u>6/9/14 10:00 AM</u> Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Turn around time: <u>2 days</u> Chain of Custody seals Y/N/NA Seals intact? Y/N/NA Received good condition/cold _____ Total # of containers _____ Notes _____																	

## SAMPLE RECEIVING REVIEW SHEET

BATCH # 774469

Client Name: LANGAN

Project: 4TH & HILLS PHASE II ESA

Received by: SUNNY

Date/Time Received: 6.9.14 / 16:00

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0      **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 5.2 °C +/- the CF (-0.2°C) = 5.0 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.     Yes     No\*     N/A

Custody Seals Intact on Cooler/Sample     Yes     No\*     N/A

Sample Containers Intact     Yes     No\*

Sample labels match COC ID's     Yes     No\*

Total number of containers received match COC     Yes     No\*

Proper containers received for analyses requested on COC     Yes     No\*

Proper preservative indicated on COC/containers for analyses requested     Yes     No\*     N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.     Yes     No\*

\* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date SL 6.9.14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

16 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Phase II ESA

Enclosed are the results of analyses for samples received by the laboratory on 06/09/14 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/16/14 13:24
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB2-SGS-5-5.5	T141169-07	Soil	06/09/14 09:56	06/09/14 16:00
LB1-SGS-15-15.5	T141169-15	Soil	06/09/14 12:07	06/09/14 16:00

**DETECTIONS SUMMARY**

**Sample ID:** LB2-SGS-5-5.5      **Laboratory ID:** T141169-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Lead	14	0.10		mg/l	STLC Waste Extractio	

**Sample ID:** LB1-SGS-15-15.5      **Laboratory ID:** T141169-15

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Lead	4.8	0.10		mg/l	STLC Waste Extractio	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



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 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/16/14 13:24
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**LB2-SGS-5-5.5**  
**T141169-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**STLC Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	14	0.10	mg/l	1	4060932	06/09/14	06/16/14	STLC Waste Extraction Test	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
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 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/16/14 13:24
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**LB1-SGS-15-15.5**  
**T141169-15 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**STLC Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	4.8	0.10	mg/l	1	4060932	06/09/14	06/16/14	STLC Waste Extraction Test	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	Reported: 06/16/14 13:24
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**STLC Metals by 6000/7000 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4060932 - STLC Metals**

**Blank (4060932-BLK1)**

Prepared: 06/09/14 Analyzed: 06/16/14

Chromium	ND	0.10	mg/l							
Lead	ND	0.10	"							

**LCS (4060932-BS1)**

Prepared: 06/09/14 Analyzed: 06/16/14

Chromium	8.77	0.10	mg/l	10.0		87.7	75-125			
Lead	8.52	0.10	"	10.0		85.2	75-125			

**Matrix Spike (4060932-MS1)**

Source: T141031-05

Prepared: 06/09/14 Analyzed: 06/16/14

Chromium	11.9	0.10	mg/l	10.0	0.240	116	75-125			
Lead	17.8	0.10	"	10.0	5.96	118	75-125			

**Matrix Spike Dup (4060932-MSD1)**

Source: T141031-05

Prepared: 06/09/14 Analyzed: 06/16/14

Chromium	11.1	0.10	mg/l	10.0	0.240	108	75-125	7.02	30	
Lead	15.8	0.10	"	10.0	5.96	98.1	75-125	12.1	30	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/16/14 13:24

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

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SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Langdon  
 Address: 37 Executive Park #130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 6/9/2014 Page: 1 Of 2  
 Project Name: 444 & Hill Phase II ESA  
 Collector: Rachael Rehoreff Client Project #: 70036602  
 Batch #: 7/4/169 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LR3-SGS-5.5'-6'	6/9/14	7:40	Soil	6" sleeve	X	X	X	X	X	X	X	X	X	01		1
LR3-SGS-10.5'-11'	6/9/14	7:46	Soil		X	X	X	X	X	X	X	X	X	02		1
LR3-SGS-15.5'-16'	6/9/14	7:53	Soil		X	X	X	X	X	X	X	X	X	03		1
LR3-SGS-20'-20.5'	6/9/14	8:01	Soil		X	X	X	X	X	X	X	X	X	04		1
LR3-SGS-25.5'-26'	6/9/14	8:43	Soil		X	X	X	X	X	X	X	X	X	05		1
LR3-SGS-30'-30.5'	6/9/14	8:50	Soil		X	X	X	X	X	X	X	X	X	06		1
LR2-SGS-5'-5.5'		9:56			X	X	X	X	X	X	X	X	X	07		1
LR2-SGS-10.5'-11'		10:01			X	X	X	X	X	X	X	X	X	08		1
LR2-SGS-15'-15.5'		10:05			X	X	X	X	X	X	X	X	X	09		1
LR2-SGS-20'-20.5'		10:15			X	X	X	X	X	X	X	X	X	10		1
LR2-SGS-25.5'-26'		10:38			X	X	X	X	X	X	X	X	X	11		1
LR2-SGS-30'-30.5'		10:45			X	X	X	X	X	X	X	X	X	12		1
LR1-SGS-5.5'-6'		11:53			X	X	X	X	X	X	X	X	X	13		1
LR1-SGS-10.5'-11'		11:58			X	X	X	X	X	X	X	X	X	14		1
LR1-SGS-15'-15.5'		12:07			X	X	X	X	X	X	X	X	X	15		1
Relinquished by: (signature) <u>Rachael Rehoreff</u>			Date / Time	Received by: (signature) _____	Date / Time	Chain of Custody seals Y/N <input checked="" type="checkbox"/> Seals intact? Y/N <input checked="" type="checkbox"/> Received good condition/cold <input checked="" type="checkbox"/>										
Relinquished by: (signature)			Date / Time	Received by: (signature)	Date / Time	Total # of containers _____										
Relinquished by: (signature)			Date / Time	Received by: (signature)	Date / Time	Turn around time: <u>2 days</u>										

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131689

SunStar Laboratories, Inc.  
 25712 Commercecentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

**Chain of Custody Record**

Client: Lanigan  
 Address: 32 Executive Park #130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 6/9/2014 Page: 2 of 2  
 Project Name: 4th Hill Phase II ESA  
 Collector: Rachel Prohaska Client Project #: 700036602  
 Batch #: 7/4/189 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	PH, Hardness, TDS	Laboratory ID #	Comments/Preservative	Total # of containers
LB1-SGS-20.5'-2'	6/9/14	12:14	Soil	6.5 liter	X						X	X		16		1
LB1-SGS-20.5'-2.55'	6/9/14	12:21	Soil	↓	X						X	X		17		1
LB1-SGS-20.5'-3'	6/9/14	12:29	GW	VASTAYS	X						X	X		18		1
LB1-SGS-GW	6/9/14	13:20	GW	VASTAYS	X						X	X		19		12
TRIP BLANK	6/9/14	13:20	GW	VASTAYS	X						X	X		20		2

Relinquished by: (signature) Rachel Prohaska Date / Time 6/9/14 4:00 PM  
 Received by: (signature) [Signature] Date / Time 6/9/14 6:00 AM  
 Relinquished by: (signature) \_\_\_\_\_ Date / Time \_\_\_\_\_  
 Received by: (signature) \_\_\_\_\_ Date / Time \_\_\_\_\_  
 Relinquished by: (signature) \_\_\_\_\_ Date / Time \_\_\_\_\_  
 Received by: (signature) \_\_\_\_\_ Date / Time \_\_\_\_\_

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_  
 Turn around time: 2 days  
 Chain of Custody seals Y/N/NA  
 Seals intact? Y/N/NA  
 Received good condition/cold 5.0  
 Notes



## SAMPLE RECEIVING REVIEW SHEET

BATCH # 774469

Client Name: LANGAN

Project: 4TH & HILLS PHASE II ESA

Received by: SUNNY

Date/Time Received: 6.9.14 / 16:00

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0      Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 5.2 °C +/- the CF (-0.2°C) = 5.0 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (-0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.     Yes     No\*     N/A

Custody Seals Intact on Cooler/Sample     Yes     No\*     N/A

Sample Containers Intact     Yes     No\*

Sample labels match COC ID's     Yes     No\*

Total number of containers received match COC     Yes     No\*

Proper containers received for analyses requested on COC     Yes     No\*

Proper preservative indicated on COC/containers for analyses requested     Yes     No\*     N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.     Yes     No\*

\* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date SL 6.9.14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

17 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Phase II ESA

Enclosed are the results of analyses for samples received by the laboratory on 06/09/14 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/17/14 15:19
---	---	------------------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB2-SGS-5-5.5	T141169-07	Soil	06/09/14 09:56	06/09/14 16:00

**DETECTIONS SUMMARY**

**Sample ID:** LB2-SGS-5-5.5

**Laboratory ID:** T141169-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Lead	0.49	0.061		mg/l	EPA 1311	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/17/14 15:19
---	---	------------------------------------

**LB2-SGS-5-5.5**  
**T141169-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TCLP Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Lead	0.49	0.061	mg/l	1	4061620	06/16/14	06/17/14	EPA 1311	

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	Reported: 06/17/14 15:19
---	---	-----------------------------

**TCLP Metals by 6000/7000 Series Methods - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4061620 - TCLP Metals</b>										
<b>Blank (4061620-BLK1)</b>				Prepared: 06/16/14 Analyzed: 06/17/14						
Lead	ND	0.050	mg/l							
<b>LCS (4061620-BS1)</b>				Prepared: 06/16/14 Analyzed: 06/17/14						
Lead	0.257	0.050	mg/l	0.250		103	75-125			
<b>Matrix Spike (4061620-MS1)</b>				Source: T141169-07 Prepared: 06/16/14 Analyzed: 06/17/14						
Lead	0.608	0.050	mg/l	0.250	0.487	48.5	75-125			QM-05
<b>Matrix Spike Dup (4061620-MSD1)</b>				Source: T141169-07 Prepared: 06/16/14 Analyzed: 06/17/14						
Lead	0.616	0.050	mg/l	0.250	0.487	51.7	75-125	1.31	30	QM-05

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

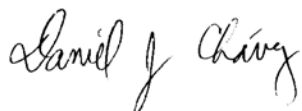
**Reported:**  
06/17/14 15:19

### Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

---

Daniel Chavez, Project Manager

## Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Langdon  
 Address: 37 Executive Park #130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilbert

Date: 6/9/2014 Page: 1 Of 2  
 Project Name: 44h & Hill Phase II ESA  
 Collector: Rachel Rehoreff Client Project #: 70036602  
 Batch #: 7/4/169 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LR3-SGS-5.5'-6'	6/9/14	7:40	Soil	6" sleeve	X	X	X	X	X	X	X	X	X	01		1
LR3-SGS-10.5'-11'	6/9/14	7:46	Soil		X	X	X	X	X	X	X	X	X	02		1
LR3-SGS-15.5'-16'	6/9/14	7:53	Soil		X	X	X	X	X	X	X	X	X	03		1
LR3-SGS-20'-20.5'	6/9/14	8:01	Soil		X	X	X	X	X	X	X	X	X	04		1
LR3-SGS-25.5'-26'	6/9/14	8:43	Soil		X	X	X	X	X	X	X	X	X	05		1
LR3-SGS-30'-30.5'	6/9/14	8:50	Soil		X	X	X	X	X	X	X	X	X	06		1
LR2-SGS-5'-5.5'		9:56			X	X	X	X	X	X	X	X	X	07		1
LR2-SGS-10.5'-11'		10:01			X	X	X	X	X	X	X	X	X	08		1
LR2-SGS-15'-15.5'		10:05			X	X	X	X	X	X	X	X	X	09		1
LR2-SGS-20'-20.5'		10:15			X	X	X	X	X	X	X	X	X	10		1
LR2-SGS-25.5'-26'		10:38			X	X	X	X	X	X	X	X	X	11		1
LR2-SGS-30'-30.5'		10:45			X	X	X	X	X	X	X	X	X	12		1
LR1-SGS-5.5'-6'		11:53			X	X	X	X	X	X	X	X	X	13		1
LR1-SGS-10.5'-11'		11:58			X	X	X	X	X	X	X	X	X	14		1
LR1-SGS-15'-15.5'		12:07			X	X	X	X	X	X	X	X	X	15		1
Relinquished by: (signature) <u>Rachel Rehoreff</u> 6/9 4:00AM			Received by: (signature) <u>Rachel Rehoreff</u> 6:24 PM													
Relinquished by: (signature)			Received by: (signature)													
Relinquished by: (signature)					Received by: (signature)											
Date / Time					Date / Time											

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

Chain of Custody seals Y/N   
 Seals intact? Y/N   
 Received good condition/cold   
 Turn around time: 2 days

COC 131689

**Chain of Custody Record**

SunStar Laboratories, Inc.  
 25712 Commerce Centre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Lanpan  
 Address: 32 Executive Park #130  
 Phone: 949-255-8640 Fax: 949-255-8641  
 Project Manager: Keith Gilber

Date: 6/9/2014 Page: 2 of 2  
 Project Name: 4th Hill Phase II ESA  
 Collector: Rachel Prohara Client Project #: 700036602  
 Batch #: 7/4/189 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	PH, Hardness, TDS	300IC	Salinity	Laboratory ID #	Comments/Preservative	Total # of containers
LB1-SGS-20.5-2'	6/9/14	12:14	Soil	6.5 liter	X							X	X	X	X	X	16		1
LB1-SGS-15'-2.55'	6/9/14	12:21	Soil	↓	X							X	X	X	X	X	17		1
LB1-SGS-20.5-3'	6/9/14	12:29	GW	VAS & PAYS	X							X	X	X	X	X	18		1
LB1-SGS-4W	6/9/14	13:20	GW	VAS & PAYS	X							X	X	X	X	X	19		12
TRIP BLANK	6/9/14	13:20	GW	VAS	X							X	X	X	X	X	20		2
Relinquished by: (signature) <u>Rachel Prohara</u> Date / Time <u>6/9/14 4:00PM</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time <u>6/9/14 6:00</u> Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																			
Chain of Custody seals Y/N/NA															Total # of containers				
Seals intact? Y/N/NA															Received good condition/cold				
Received good condition/cold															50				
Turn around time: <u>2 days</u>																			

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131690



## SAMPLE RECEIVING REVIEW SHEET

BATCH # 774469

Client Name: LANGAN

Project: 4TH & HILLS PHASE II ESA

Received by: SUNNY

Date/Time Received: 6.9.14 / 16:00

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0      **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 5.2 °C +/- the CF (- 0.2°C) = 5.0 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.     Yes     No\*     N/A

Custody Seals Intact on Cooler/Sample     Yes     No\*     N/A

Sample Containers Intact     Yes     No\*

Sample labels match COC ID's     Yes     No\*

Total number of containers received match COC     Yes     No\*

Proper containers received for analyses requested on COC     Yes     No\*

Proper preservative indicated on COC/containers for analyses requested     Yes     No\*     N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.     Yes     No\*

\* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date SL 6.9.14

Comments:

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949.297.5027 Fax

12 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Phase II ESA

Enclosed are the results of analyses for samples received by the laboratory on 06/10/14 11:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



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 949.297.5027 Fax

Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:37

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB4-SGS-5.5-6	T141172-01	Soil	06/10/14 07:45	06/10/14 11:50
LB4-SGS-10.5-11	T141172-02	Soil	06/10/14 07:50	06/10/14 11:50
LB4-SGS-15.5-16	T141172-03	Soil	06/10/14 08:10	06/10/14 11:50
LB4-SGS-20.5-21	T141172-04	Soil	06/10/14 08:27	06/10/14 11:50
LB4-SGS-25.5-26	T141172-05	Soil	06/10/14 08:35	06/10/14 11:50
LB4-SGS-30.5-31	T141172-06	Soil	06/10/14 08:40	06/10/14 11:50
LB-2-DEEP-GW	T141172-07	Water	06/10/14 09:15	06/10/14 11:50
LB-2-SHALLOW-GW	T141172-08	Water	06/10/14 09:45	06/10/14 11:50

**DETECTIONS SUMMARY**

**Sample ID:** LB4-SGS-5.5-6

**Laboratory ID:** T141172-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
C29-C40 (MORO)	17	10		mg/kg	EPA 8015C	
Barium	1500	1.0		mg/kg	EPA 6010B	
Chromium	3.2	2.0		mg/kg	EPA 6010B	
Copper	3.6	1.0		mg/kg	EPA 6010B	
Nickel	2.0	2.0		mg/kg	EPA 6010B	
Vanadium	22	5.0		mg/kg	EPA 6010B	
Zinc	12	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB4-SGS-10.5-11

**Laboratory ID:** T141172-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	95	1.0		mg/kg	EPA 6010B	
Chromium	4.1	2.0		mg/kg	EPA 6010B	
Cobalt	6.9	2.0		mg/kg	EPA 6010B	
Copper	11	1.0		mg/kg	EPA 6010B	

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Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:37

**Sample ID:** LB4-SGS-10.5-11

**Laboratory ID:** T141172-02

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Lead	3.1	3.0	mg/kg	EPA 6010B	
Nickel	4.1	2.0	mg/kg	EPA 6010B	
Vanadium	25	5.0	mg/kg	EPA 6010B	
Zinc	59	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB4-SGS-15.5-16

**Laboratory ID:** T141172-03

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	81	1.0	mg/kg	EPA 6010B	
Chromium	7.9	2.0	mg/kg	EPA 6010B	
Cobalt	5.7	2.0	mg/kg	EPA 6010B	
Copper	71	1.0	mg/kg	EPA 6010B	
Lead	3.1	3.0	mg/kg	EPA 6010B	
Nickel	7.1	2.0	mg/kg	EPA 6010B	
Vanadium	20	5.0	mg/kg	EPA 6010B	
Zinc	64	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB4-SGS-20.5-21

**Laboratory ID:** T141172-04


Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	110	1.0	mg/kg	EPA 6010B	
Chromium	19	2.0	mg/kg	EPA 6010B	
Cobalt	13	2.0	mg/kg	EPA 6010B	
Copper	22	1.0	mg/kg	EPA 6010B	
Lead	5.8	3.0	mg/kg	EPA 6010B	
Nickel	18	2.0	mg/kg	EPA 6010B	
Vanadium	43	5.0	mg/kg	EPA 6010B	
Zinc	68	1.0	mg/kg	EPA 6010B	

**Sample ID:** LB4-SGS-25.5-26

**Laboratory ID:** T141172-05

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Barium	93	1.0	mg/kg	EPA 6010B	
Chromium	17	2.0	mg/kg	EPA 6010B	

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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:37

**Sample ID:** LB4-SGS-25.5-26

**Laboratory ID:** T141172-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Cobalt	8.7	2.0		mg/kg	EPA 6010B	
Copper	14	1.0		mg/kg	EPA 6010B	
Lead	3.6	3.0		mg/kg	EPA 6010B	
Nickel	14	2.0		mg/kg	EPA 6010B	
Vanadium	33	5.0		mg/kg	EPA 6010B	
Zinc	51	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB4-SGS-30.5-31

**Laboratory ID:** T141172-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	100	1.0		mg/kg	EPA 6010B	
Beryllium	1.1	1.0		mg/kg	EPA 6010B	
Chromium	26	2.0		mg/kg	EPA 6010B	
Cobalt	13	2.0		mg/kg	EPA 6010B	
Copper	27	1.0		mg/kg	EPA 6010B	
Lead	7.1	3.0		mg/kg	EPA 6010B	
Nickel	21	2.0		mg/kg	EPA 6010B	
Vanadium	43	5.0		mg/kg	EPA 6010B	
Zinc	73	1.0		mg/kg	EPA 6010B	

**Sample ID:** LB-2-DEEP-GW

**Laboratory ID:** T141172-07

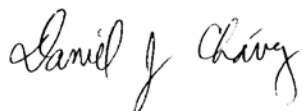
Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	78	50		ug/l	EPA 6010B	

**Sample ID:** LB-2-SHALLOW-GW

**Laboratory ID:** T141172-08

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	260	50		ug/l	EPA 6010B	
Copper	120	50		ug/l	EPA 6010B	
Lead	140	50		ug/l	EPA 6010B	
Zinc	140	50		ug/l	EPA 6010B	

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Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:37

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services  
 32 Executive Park, Suite 130  
 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-5.5-6**  
**T141172-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061033	06/10/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
<b>C29-C40 (MORO)</b>	<b>17</b>	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		92.7 %	65-135		"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061031	06/10/14	06/11/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>1500</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>3.2</b>	2.0	"	"	"	"	"	"	
Cobalt	ND	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>3.6</b>	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>2.0</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>22</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>12</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061032	06/10/14	06/10/14	EPA 7471A Soil	
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SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:37

**LB4-SGS-5.5-6  
T141172-01 (Soil)**

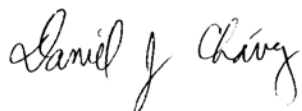
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Bromobenzene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B
Bromochloromethane	ND	5.0	"	"	"	"	"	"
Bromodichloromethane	ND	5.0	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"
Bromomethane	ND	5.0	"	"	"	"	"	"
n-Butylbenzene	ND	5.0	"	"	"	"	"	"
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"
Chlorobenzene	ND	5.0	"	"	"	"	"	"
Chloroethane	ND	5.0	"	"	"	"	"	"
Chloroform	ND	5.0	"	"	"	"	"	"
Chloromethane	ND	5.0	"	"	"	"	"	"
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"
Dibromochloromethane	ND	5.0	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"
Dibromomethane	ND	5.0	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-5.5-6**  
**T141172-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		134 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		108 %	85.5-116		"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:37
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**LB4-SGS-10.5-11**  
**T141172-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061033	06/10/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		90.0 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061031	06/10/14	06/11/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>95</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/11/14	"	
Cadmium	ND	2.0	"	"	"	"	06/11/14	"	
<b>Chromium</b>	<b>4.1</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>6.9</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>11</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>3.1</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.1</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>25</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>59</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061032	06/10/14	06/10/14	EPA 7471A Soil	
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Daniel Chavez, Project Manager



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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	Reported: 06/12/14 16:37
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**LB4-SGS-10.5-11**  
**T141172-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
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**LB4-SGS-10.5-11**  
**T141172-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.9 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		132 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		105 %	85.5-116		"	"	"	"	

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**LB4-SGS-15.5-16**  
**T141172-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061033	06/10/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		94.7 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061031	06/10/14	06/11/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>81</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/11/14	"	
Cadmium	ND	2.0	"	"	"	"	06/11/14	"	
<b>Chromium</b>	<b>7.9</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>5.7</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>71</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>3.1</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>7.1</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>20</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>64</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061032	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-15.5-16**  
**T141172-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
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**LB4-SGS-15.5-16**  
**T141172-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		124 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		113 %	85.5-116		"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
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**LB4-SGS-20.5-21**  
**T141172-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061033	06/10/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		94.4 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061031	06/10/14	06/11/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	06/11/14	"	
Arsenic	ND	5.0	"	"	"	"	06/11/14	"	
<b>Barium</b>	<b>110</b>	1.0	"	"	"	"	06/11/14	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	06/11/14	"	
<b>Chromium</b>	<b>19</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>13</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>22</b>	1.0	"	"	"	"	06/11/14	"	
<b>Lead</b>	<b>5.8</b>	3.0	"	"	"	"	06/11/14	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>18</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	06/11/14	"	
<b>Vanadium</b>	<b>43</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>68</b>	1.0	"	"	"	"	06/11/14	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061032	06/10/14	06/10/14	EPA 7471A Soil	
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**LB4-SGS-20.5-21**  
**T141172-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-20.5-21**  
**T141172-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.1 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		135 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		110 %	85.5-116		"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:37

**LB4-SGS-25.5-26**  
**T141172-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061033	06/10/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		95.8 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061031	06/10/14	06/11/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>93</b>	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/11/14	"	
Cadmium	ND	2.0	"	"	"	"	06/11/14	"	
<b>Chromium</b>	<b>17</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>8.7</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>14</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>3.6</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>14</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>33</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>51</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061032	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-25.5-26**  
**T141172-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-25.5-26**  
**T141172-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.8 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		126 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		114 %	85.5-116		"	"	"	"	

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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/12/14 16:37
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**LB4-SGS-30.5-31**  
**T141172-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	4061033	06/10/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		90.8 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	3.0	mg/kg	1	4061031	06/10/14	06/11/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
<b>Barium</b>	<b>100</b>	1.0	"	"	"	"	"	"	
<b>Beryllium</b>	<b>1.1</b>	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
<b>Chromium</b>	<b>26</b>	2.0	"	"	"	"	"	"	
<b>Cobalt</b>	<b>13</b>	2.0	"	"	"	"	"	"	
<b>Copper</b>	<b>27</b>	1.0	"	"	"	"	"	"	
<b>Lead</b>	<b>7.1</b>	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
<b>Nickel</b>	<b>21</b>	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
<b>Vanadium</b>	<b>43</b>	5.0	"	"	"	"	"	"	
<b>Zinc</b>	<b>73</b>	1.0	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.10	mg/kg	1	4061032	06/10/14	06/10/14	EPA 7471A Soil	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-30.5-31**  
**T141172-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB4-SGS-30.5-31**  
**T141172-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	4061035	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.9 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		107 %	95.7-135		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	85.5-116		"	"	"	"	

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Daniel Chavez, Project Manager





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**LB-2-DEEP-GW  
 T141172-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	0.50	mg/l	1	4060921	06/11/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	0.50	"	"	"	"	"	"	
C29-C40 (MORO)	ND	0.50	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		89.2 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	50	ug/l	1	4061024	06/10/14	06/11/14	EPA 6010B	
Silver	ND	50	"	"	"	"	"	"	
Arsenic	ND	50	"	"	"	"	"	"	
<b>Barium</b>	<b>78</b>	50	"	"	"	"	"	"	
Beryllium	ND	50	"	"	"	"	06/11/14	"	
Cadmium	ND	50	"	"	"	"	06/11/14	"	
Chromium	ND	50	"	"	"	"	"	"	
Cobalt	ND	50	"	"	"	"	"	"	
Copper	ND	50	"	"	"	"	"	"	
Lead	ND	50	"	"	"	"	"	"	
Molybdenum	ND	50	"	"	"	"	"	"	
Nickel	ND	50	"	"	"	"	"	"	
Selenium	ND	50	"	"	"	"	"	"	
Thallium	ND	50	"	"	"	"	"	"	
Vanadium	ND	50	"	"	"	"	"	"	
Zinc	ND	50	"	"	"	"	"	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.50	ug/l	1	4061025	06/10/14	06/10/14	EPA 7470A Water	
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 Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB-2-DEEP-GW**  
**T141172-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	1.0	ug/l	1	4061034	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB-2-DEEP-GW**  
**T141172-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	0.50	ug/l	1	4061034	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	83.5-119		"	"	"	"	
Surrogate: Dibromofluoromethane		85.1 %	81-136		"	"	"	"	
Surrogate: Toluene-d8		84.0 %	88.8-117		"	"	"	"	S-GC

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**LB-2-SHALLOW-GW  
T141172-08 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	0.50	mg/l	1	4060921	06/11/14	06/12/14	EPA 8015C	
C13-C28 (DRO)	ND	0.50	"	"	"	"	"	"	
C29-C40 (MORO)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		96.7 %		65-135	"	"	"	"	

**Metals by EPA 6010B**

Antimony	ND	50	ug/l	1	4061024	06/10/14	06/11/14	EPA 6010B	
Silver	ND	50	"	"	"	"	06/11/14	"	
Arsenic	ND	50	"	"	"	"	06/11/14	"	
<b>Barium</b>	<b>260</b>	50	"	"	"	"	06/11/14	"	
Beryllium	ND	50	"	"	"	"	"	"	
Cadmium	ND	50	"	"	"	"	06/11/14	"	
Chromium	ND	50	"	"	"	"	"	"	
Cobalt	ND	50	"	"	"	"	"	"	
<b>Copper</b>	<b>120</b>	50	"	"	"	"	06/11/14	"	
<b>Lead</b>	<b>140</b>	50	"	"	"	"	06/11/14	"	
Molybdenum	ND	50	"	"	"	"	"	"	
Nickel	ND	50	"	"	"	"	"	"	
Selenium	ND	50	"	"	"	"	"	"	
Thallium	ND	50	"	"	"	"	"	"	
Vanadium	ND	50	"	"	"	"	06/11/14	"	
<b>Zinc</b>	<b>140</b>	50	"	"	"	"	06/11/14	"	

**Cold Vapor Extraction EPA 7470/7471**

Mercury	ND	0.50	ug/l	1	4061025	06/10/14	06/10/14	EPA 7470A Water	
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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB-2-SHALLOW-GW**  
**T141172-08 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	1.0	ug/l	1	4061034	06/10/14	06/12/14	EPA 8260B	
Bromochloromethane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Dibromomethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**LB-2-SHALLOW-GW**  
**T141172-08 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

cis-1,3-Dichloropropene	ND	0.50	ug/l	1	4061034	06/10/14	06/12/14	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
n-Propylbenzene	ND	1.0	"	"	"	"	"	"	
Styrene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.0 %	83.5-119		"	"	"	"	
Surrogate: Dibromofluoromethane		95.1 %	81-136		"	"	"	"	
Surrogate: Toluene-d8		86.5 %	88.8-117		"	"	"	"	S-GC

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4060921 - EPA 3510C GC**

**Blank (4060921-BLK1)**

Prepared: 06/09/14 Analyzed: 06/12/14

C6-C12 (GRO)	ND	0.50	mg/l							
C13-C28 (DRO)	ND	0.50	"							
C29-C40 (MORO)	ND	0.50	"							
Surrogate: <i>p</i> -Terphenyl	3.44		"	4.00		86.0	65-135			

**LCS (4060921-BS1)**

Prepared: 06/09/14 Analyzed: 06/12/14

C13-C28 (DRO)	17.3	0.50	mg/l	20.0		86.3	75-125			
Surrogate: <i>p</i> -Terphenyl	3.36		"	4.00		83.9	65-135			

**Matrix Spike (4060921-MS1)**

Source: T141158-01

Prepared: 06/09/14 Analyzed: 06/12/14

C13-C28 (DRO)	17.7	0.50	mg/l	20.0	ND	88.7	75-125			
Surrogate: <i>p</i> -Terphenyl	3.45		"	4.00		86.2	65-135			

**Matrix Spike Dup (4060921-MSD1)**

Source: T141158-01

Prepared: 06/09/14 Analyzed: 06/12/14

C13-C28 (DRO)	18.4	0.50	mg/l	20.0	ND	92.2	75-125	3.78	20	
Surrogate: <i>p</i> -Terphenyl	3.47		"	4.00		86.7	65-135			

**Batch 4061033 - EPA 3550B GC**

**Blank (4061033-BLK1)**

Prepared: 06/10/14 Analyzed: 06/12/14

C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: <i>p</i> -Terphenyl	102		"	100		102	65-135			

**LCS (4061033-BS1)**

Prepared: 06/10/14 Analyzed: 06/12/14

C13-C28 (DRO)	480	10	mg/kg	500		95.6	75-125			
Surrogate: <i>p</i> -Terphenyl	102		"	100		102	65-135			

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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061033 - EPA 3550B GC**

<b>Matrix Spike (4061033-MS1)</b>		<b>Source: T141172-01</b>		Prepared: 06/10/14		Analyzed: 06/12/14	
C13-C28 (DRO)	490	10	mg/kg	500	ND	98.1	75-125
Surrogate: <i>p</i> -Terphenyl	91.6		"	100		91.6	65-135
<b>Matrix Spike Dup (4061033-MSD1)</b>		<b>Source: T141172-01</b>		Prepared: 06/10/14		Analyzed: 06/12/14	
C13-C28 (DRO)	440	10	mg/kg	500	ND	87.8	75-125 11.1 20
Surrogate: <i>p</i> -Terphenyl	85.4		"	100		85.4	65-135

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**Metals by EPA 6010B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061024 - EPA 3010A**

**Blank (4061024-BLK1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Antimony	ND	50	ug/l							
Silver	ND	50	"							
Arsenic	ND	50	"							
Barium	ND	50	"							
Beryllium	ND	50	"							
Cadmium	ND	50	"							
Chromium	ND	50	"							
Cobalt	ND	50	"							
Copper	ND	50	"							
Lead	ND	50	"							
Molybdenum	ND	50	"							
Nickel	ND	50	"							
Selenium	ND	50	"							
Thallium	ND	50	"							
Vanadium	ND	50	"							
Zinc	ND	50	"							

**LCS (4061024-BS1)**

Prepared: 06/10/14 Analyzed: 06/11/14

Arsenic	568	50	ug/l	500		114	75-125			
Barium	527	50	"	500		105	75-125			
Cadmium	520	50	"	500		104	75-125			
Chromium	514	50	"	500		103	75-125			
Lead	527	50	"	500		105	75-125			

**Matrix Spike (4061024-MS1)**

Source: T141169-19

Prepared: 06/10/14 Analyzed: 06/11/14

Arsenic	585	50	ug/l	500	26.7	112	75-125			
Barium	1080	50	"	500	589	99.2	75-125			
Cadmium	483	50	"	500	ND	96.6	75-125			
Chromium	498	50	"	500	37.1	92.3	75-125			
Lead	471	50	"	500	ND	94.2	75-125			

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**Metals by EPA 6010B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061024 - EPA 3010A**

Matrix Spike Dup (4061024-MSD1)	Source: T141169-19	Prepared: 06/10/14	Analyzed: 06/11/14
Arsenic	604	50 ug/l	500
Barium	1110	50 "	500
Cadmium	482	50 "	500
Chromium	498	50 "	500
Lead	483	50 "	500

**Batch 4061031 - EPA 3051**

Blank (4061031-BLK1)	Prepared: 06/10/14	Analyzed: 06/11/14
Antimony	ND	3.0 mg/kg
Silver	ND	2.0 "
Arsenic	ND	5.0 "
Barium	ND	1.0 "
Beryllium	ND	1.0 "
Cadmium	ND	2.0 "
Chromium	ND	2.0 "
Cobalt	ND	2.0 "
Copper	ND	1.0 "
Lead	ND	3.0 "
Molybdenum	ND	5.0 "
Nickel	ND	2.0 "
Selenium	ND	5.0 "
Thallium	ND	2.0 "
Vanadium	ND	5.0 "
Zinc	ND	1.0 "

LCS (4061031-BS1)	Prepared: 06/10/14	Analyzed: 06/11/14
Arsenic	114	5.0 mg/kg
Barium	108	1.0 "
Cadmium	106	2.0 "
Chromium	107	2.0 "
Lead	106	3.0 "

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Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:37

**Metals by EPA 6010B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061031 - EPA 3051**

**Matrix Spike (4061031-MS1)**

**Source: T141172-01**

Prepared: 06/10/14

Analyzed: 06/11/14

Arsenic	113	5.0	mg/kg	100	4.39	109	75-125			
Barium	1280	1.0	"	100	1530	NR	75-125			QM-05
Cadmium	101	2.0	"	100	0.338	100	75-125			
Chromium	107	2.0	"	100	3.25	104	75-125			
Lead	102	3.0	"	100	1.67	101	75-125			

**Matrix Spike Dup (4061031-MSD1)**

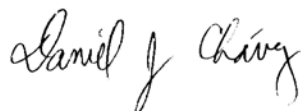
**Source: T141172-01**

Prepared: 06/10/14

Analyzed: 06/11/14

Arsenic	106	5.0	mg/kg	100	4.39	102	75-125	6.84	20	
Barium	1180	1.0	"	100	1530	NR	75-125	7.91	20	QM-05
Cadmium	94.4	2.0	"	100	0.338	94.0	75-125	6.33	20	
Chromium	98.9	2.0	"	100	3.25	95.6	75-125	7.71	20	
Lead	93.7	3.0	"	100	1.67	92.1	75-125	8.93	20	

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

**Reported:**  
 06/12/14 16:37

**Cold Vapor Extraction EPA 7470/7471 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061025 - EPA 7470A Water**

<b>Blank (4061025-BLK1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	ND	0.50	ug/l							
<b>LCS (4061025-BS1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	4.69	0.50	ug/l	5.00		93.7	75-125			
<b>Matrix Spike (4061025-MS1)</b>				Source: T141169-19 Prepared & Analyzed: 06/10/14						
Mercury	4.55	0.50	ug/l	5.00	ND	90.9	75-125			
<b>Matrix Spike Dup (4061025-MSD1)</b>				Source: T141169-19 Prepared & Analyzed: 06/10/14						
Mercury	4.54	0.50	ug/l	5.00	ND	90.8	75-125	0.182	20	

**Batch 4061032 - EPA 7471A Soil**

<b>Blank (4061032-BLK1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	ND	0.10	mg/kg							
<b>LCS (4061032-BS1)</b>				Prepared & Analyzed: 06/10/14						
Mercury	0.418	0.10	mg/kg	0.417		100	80-120			
<b>Matrix Spike (4061032-MS1)</b>				Source: T141172-01 Prepared & Analyzed: 06/10/14						
Mercury	0.437	0.10	mg/kg	0.417	ND	105	75-125			
<b>Matrix Spike Dup (4061032-MSD1)</b>				Source: T141172-01 Prepared & Analyzed: 06/10/14						
Mercury	0.349	0.10	mg/kg	0.417	ND	83.8	75-125	22.3	20	QM-07

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061034 - EPA 5030 GCMS**

**Blank (4061034-BLK1)**

Prepared: 06/10/14 Analyzed: 06/12/14

Bromobenzene	ND	1.0	ug/l							
Bromochloromethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
Bromoform	ND	1.0	"							
Bromomethane	ND	1.0	"							
n-Butylbenzene	ND	1.0	"							
sec-Butylbenzene	ND	1.0	"							
tert-Butylbenzene	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	1.0	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	1.0	"							
Chloromethane	ND	1.0	"							
2-Chlorotoluene	ND	1.0	"							
4-Chlorotoluene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	1.0	"							
Dibromomethane	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
Dichlorodifluoromethane	ND	0.50	"							
1,1-Dichloroethane	ND	1.0	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
trans-1,2-Dichloroethene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
1,3-Dichloropropane	ND	1.0	"							
2,2-Dichloropropane	ND	1.0	"							
1,1-Dichloropropene	ND	1.0	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Hexachlorobutadiene	ND	1.0	"							
Isopropylbenzene	ND	1.0	"							

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

Reported:  
 06/12/14 16:37

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061034 - EPA 5030 GCMS**

**Blank (4061034-BLK1)**

Prepared: 06/10/14 Analyzed: 06/12/14

p-Isopropyltoluene	ND	1.0	ug/l							
Methylene chloride	ND	1.0	"							
Naphthalene	ND	1.0	"							
n-Propylbenzene	ND	1.0	"							
Styrene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	1.0	"							
Tetrachloroethene	ND	1.0	"							
1,2,3-Trichlorobenzene	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Trichloroethene	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
Vinyl chloride	ND	1.0	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.50	"							
Surrogate: 4-Bromofluorobenzene	8.14		"	8.00		102	83.5-119			
Surrogate: Dibromofluoromethane	10.4		"	8.00		130	81-136			
Surrogate: Toluene-d8	7.34		"	8.00		91.8	88.8-117			

**LCS (4061034-BS1)**

Prepared: 06/10/14 Analyzed: 06/12/14

Chlorobenzene	16.9	1.0	ug/l	20.0		84.7	75-125			
1,1-Dichloroethene	22.7	1.0	"	20.0		114	75-125			
Trichloroethene	17.5	1.0	"	20.0		87.5	75-125			
Benzene	20.1	0.50	"	20.0		100	75-125			
Toluene	22.8	0.50	"	20.0		114	75-125			
Surrogate: 4-Bromofluorobenzene	7.47		"	8.00		93.4	83.5-119			
Surrogate: Dibromofluoromethane	10.2		"	8.00		128	81-136			
Surrogate: Toluene-d8	8.43		"	8.00		105	88.8-117			

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 Project Number: 700036602  
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Reported:  
 06/12/14 16:37

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061034 - EPA 5030 GCMS**

**Matrix Spike (4061034-MS1)**

Source: T141170-01

Prepared: 06/10/14 Analyzed: 06/12/14

Chlorobenzene	19.0	1.0	ug/l	20.0	ND	95.0	75-125			
1,1-Dichloroethene	21.2	1.0	"	20.0	ND	106	75-125			
Trichloroethene	23.2	1.0	"	20.0	ND	116	75-125			
Benzene	20.8	0.50	"	20.0	ND	104	75-125			
Toluene	20.7	0.50	"	20.0	ND	104	75-125			
Surrogate: 4-Bromofluorobenzene	8.20		"	8.00		102	83.5-119			
Surrogate: Dibromofluoromethane	6.94		"	8.00		86.8	81-136			
Surrogate: Toluene-d8	7.14		"	8.00		89.2	88.8-117			

**Matrix Spike Dup (4061034-MSD1)**

Source: T141170-01

Prepared: 06/10/14 Analyzed: 06/12/14

Chlorobenzene	20.2	1.0	ug/l	20.0	ND	101	75-125	5.98	20	
1,1-Dichloroethene	22.8	1.0	"	20.0	ND	114	75-125	7.00	20	
Trichloroethene	22.3	1.0	"	20.0	ND	111	75-125	4.04	20	
Benzene	21.9	0.50	"	20.0	ND	110	75-125	5.58	20	
Toluene	19.7	0.50	"	20.0	ND	98.5	75-125	5.05	20	
Surrogate: 4-Bromofluorobenzene	7.67		"	8.00		95.9	83.5-119			
Surrogate: Dibromofluoromethane	7.54		"	8.00		94.2	81-136			
Surrogate: Toluene-d8	7.27		"	8.00		90.9	88.8-117			

**Batch 4061035 - EPA 5030 GCMS**

**Blank (4061035-BLK1)**

Prepared: 06/10/14 Analyzed: 06/12/14

Bromobenzene	ND	5.0	ug/kg							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							

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 Project Number: 700036602  
 Project Manager: Keith Gilbert

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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061035 - EPA 5030 GCMS**

**Blank (4061035-BLK1)**

Prepared: 06/10/14 Analyzed: 06/12/14

4-Chlorotoluene	ND	5.0	ug/kg							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							

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Project: 4th & Hill Phase II ESA  
 Project Number: 700036602  
 Project Manager: Keith Gilbert

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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061035 - EPA 5030 GCMS**

**Blank (4061035-BLK1)**

Prepared: 06/10/14 Analyzed: 06/12/14

1,2,3-Trichloropropane	ND	5.0	ug/kg							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
<i>Surrogate: 4-Bromofluorobenzene</i>	34.5		"	40.0		86.2	81.2-123			
<i>Surrogate: Dibromofluoromethane</i>	48.7		"	40.0		122	95.7-135			
<i>Surrogate: Toluene-d8</i>	41.0		"	40.0		102	85.5-116			

**LCS (4061035-BS1)**

Prepared: 06/10/14 Analyzed: 06/12/14

Chlorobenzene	85.0	5.0	ug/kg	100		85.0	75-125			
1,1-Dichloroethene	91.6	5.0	"	100		91.6	75-125			
Trichloroethene	88.8	5.0	"	100		88.8	75-125			
Benzene	93.6	5.0	"	100		93.6	75-125			
Toluene	96.4	5.0	"	100		96.4	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	48.3		"	40.0		121	81.2-123			
<i>Surrogate: Dibromofluoromethane</i>	50.8		"	40.0		127	95.7-135			
<i>Surrogate: Toluene-d8</i>	46.2		"	40.0		116	85.5-116			

**Matrix Spike (4061035-MS1)**

Source: T141172-01

Prepared: 06/10/14 Analyzed: 06/12/14

Chlorobenzene	93.0	5.0	ug/kg	100	ND	93.0	75-125			
1,1-Dichloroethene	99.6	5.0	"	100	ND	99.6	75-125			
Trichloroethene	117	5.0	"	100	ND	117	75-125			
Benzene	101	5.0	"	100	ND	101	75-125			
Toluene	92.4	5.0	"	100	ND	92.4	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	46.7		"	40.0		117	81.2-123			
<i>Surrogate: Dibromofluoromethane</i>	44.2		"	40.0		110	95.7-135			
<i>Surrogate: Toluene-d8</i>	40.7		"	40.0		102	85.5-116			

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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061035 - EPA 5030 GCMS**

Matrix Spike Dup (4061035-MSD1)	Source: T141172-01	Prepared: 06/10/14	Analyzed: 06/12/14
Chlorobenzene	90.9	5.0 ug/kg	100 ND 90.9 75-125 2.34 20
1,1-Dichloroethene	102	5.0 "	100 ND 102 75-125 1.89 20
Trichloroethene	118	5.0 "	100 ND 118 75-125 1.19 20
Benzene	105	5.0 "	100 ND 105 75-125 4.57 20
Toluene	94.3	5.0 "	100 ND 94.3 75-125 2.04 20
Surrogate: 4-Bromofluorobenzene	46.9	"	40.0 117 81.2-123
Surrogate: Dibromofluoromethane	43.6	"	40.0 109 95.7-135
Surrogate: Toluene-d8	40.5	"	40.0 101 85.5-116

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Daniel Chavez, Project Manager



25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/12/14 16:37

### Notes and Definitions

- S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- QM-07 The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Langan  
 Address: 32 Executive Park #130  
 Phone: 949-255-8140 Fax: 949-255-8141  
 Project Manager: Rachel Prohoro

Date: 6/10/2014 Page: 1 of 1  
 Project Name: 4th & Hill Phase II ESA  
 Collector: Rachel Prohoro Client Project #: 300036662  
 Batch #: 7/11/12 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
L84-SGS-5.5'-6"	6/10	7:45	Soil	6" Stare	X									01		1
L84-SGS-10.5'-11"	6/10	7:50			X									02		1
L84-SGS-15.5'-16"	6/10	8:10			X									03		1
L84-SGS-20.5'-21"	6/10	8:27			X									04		1
L84-SGS-25.5'-26"	6/10	8:35			X									05		1
L84-SGS-30.5'-31"	6/10	8:40			X									06		1
L8-2-Deep-GW	6/10	9:15			X									07		1
L8-2-Shallow-GW	6/10	9:45	GW	WAS/poly	X									08		1
L8-2-Shallow-DWP	6/10	9:45			X									09	Hold	1
Relinquished by: (signature) <u>Rachel Prohoro</u> Date / Time <u>6/10 11:50</u> Received by: (signature) _____ Date / Time <u>6/10/14 12:50</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

Turn around time: 2 days

Chain of Custody seals Y/N/NA NA  
 Received good condition/cold 2.7

Notes \_\_\_\_\_

## SAMPLE RECEIVING REVIEW SHEET

BATCH # 7141172

Client Name: LANGAN

Project: 4TH & HILL PHASE II ESA

Received by: SUNNY

Date/Time Received: 6-10-14 / 11:50

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 2.9 °C +/- the CF (- 0.2°C) = 2.7 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A

Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A

Sample Containers Intact  Yes  No\*

Sample labels match COC ID's  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date RL 6-10-14

Comments:

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25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

18 June 2014

Keith Gilbert  
Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614  
RE: 4th & Hill Phase II ESA

Enclosed are the results of analyses for samples received by the laboratory on 06/10/14 11:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/18/14 15:16
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LB4-SGS-5.5-6	T141172-01	Soil	06/10/14 07:45	06/10/14 11:50

**DETECTIONS SUMMARY**

**Sample ID:** LB4-SGS-5.5-6

**Laboratory ID:** T141172-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	0.41	0.0010		mg/l	STLC Waste Extractio	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



25712 Commercentre Drive  
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Langan Engineering & Environmental Services 32 Executive Park, Suite 130 Irvine CA, 92614	Project: 4th & Hill Phase II ESA Project Number: 700036602 Project Manager: Keith Gilbert	<b>Reported:</b> 06/18/14 15:16
---	---	------------------------------------

**LB4-SGS-5.5-6**  
**T141172-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**STLC Metals by 6000/7000 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	0.41	0.0010	mg/l	1	4061619	06/16/14	06/18/14	STLC Waste Extraction Test	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/18/14 15:16

**STLC Metals by 6000/7000 Series Methods - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4061619 - STLC Metals**

**Blank (4061619-BLK1)**

Prepared: 06/16/14 Analyzed: 06/18/14

Barium 0.00 mg/l

**LCS (4061619-BS1)**

Prepared: 06/16/14 Analyzed: 06/18/14

Barium 10.4 mg/l 10.0 104 75-125

**Matrix Spike (4061619-MS1)**

Source: T141172-01

Prepared: 06/16/14 Analyzed: 06/18/14

Barium 62.4 0.10 mg/l 10.0 0.409 620 75-125 QM-05

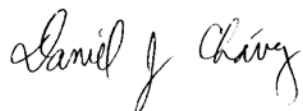
**Matrix Spike Dup (4061619-MSD1)**

Source: T141172-01

Prepared: 06/16/14 Analyzed: 06/18/14

Barium 58.0 0.10 mg/l 10.0 0.409 576 75-125 7.31 30 QM-05

SunStar Laboratories, Inc.



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Daniel Chavez, Project Manager



25712 Commercentre Drive  
Lake Forest, California 92630  
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949.297.5027 Fax

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine CA, 92614

Project: 4th & Hill Phase II ESA  
Project Number: 700036602  
Project Manager: Keith Gilbert

**Reported:**  
06/18/14 15:16

### Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Daniel Chavez, Project Manager

# Chain of Custody Record

SunStar Laboratories, Inc.  
 25712 Commercecentre Dr  
 Lake Forest, CA 92630  
 949-297-5020

Client: Langran  
 Address: 32 Executive Park #130  
 Phone: 949-255-8140 Fax: 949-255-8141  
 Project Manager: Rachel Prohoroff

Date: 6/10/2014 Page: 1 of 1  
 Project Name: 4th & Hill Phase II ESA  
 Collector: Rachel Prohoroff Client Project #: 3000366602  
 Batch #: 7/11/12 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
LB4-SGS-5.5'-6"	6/10	7:45	Soil	6"Styro	X							X	X	01		1
LB4-SGS-10.5'-11"	6/10	7:50										X	X	02		1
LB4-SGS-15.5'-16"	6/10	8:10										X	X	03		1
LB4-SGS-20.5'-21"	6/10	8:27										X	X	04		1
LB4-SGS-25.5'-26"	6/10	8:35										X	X	05		1
LB4-SGS-30.5'-31"	6/10	8:40										X	X	06		1
LB-2-Deep-GW	6/10	9:15										X	X	07		1
LB-2-Shallow-GW	6/10	9:45	GW	WAS/poly								X	X	08		1
LB-2-Shallow-DWP	6/10	9:45										X	X	09	Hold	1
Relinquished by: (signature) <u>Rachel Prohoroff</u> Date / Time <u>6/10 11:50</u> Received by: (signature) _____ Date / Time <u>6/10/14 12:50</u> Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____																
Relinquished by: (signature) _____ Date / Time _____ Received by: (signature) _____ Date / Time _____ Chain of Custody seals Y/N/NA <u>Y</u> Seals intact? Y/N/NA <u>Y</u> Received good condition/cold <u>2.7</u> Turn around time: <u>2 days</u>																

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

COC 131691

## SAMPLE RECEIVING REVIEW SHEET

BATCH # 7141172

Client Name: LANGAN

Project: 4TH & HILL PHASE II ESA

Received by: SUNNY

Date/Time Received: 6-10-14 / 11:50

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other \_\_\_\_\_

Total number of coolers received 0      Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 2.9 °C +/- the CF (- 0.2°C) = 2.7 °C corrected temperature

cooler #2 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

cooler #3 \_\_\_\_\_ °C +/- the CF (- 0.2°C) = \_\_\_\_\_ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.  Yes  No\*  N/A

Custody Seals Intact on Cooler/Sample  Yes  No\*  N/A

Sample Containers Intact  Yes  No\*

Sample labels match COC ID's  Yes  No\*

Total number of containers received match COC  Yes  No\*

Proper containers received for analyses requested on COC  Yes  No\*

Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times.  Yes  No\*

\* Complete Non-Conformance Receiving Sheet if checked      Cooler/Sample Review - Initials and date RL 6-10-14

Comments:

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Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DRAFT: LB1-SGS-5, 1PV, P7349cc	E406047-01	Vapor	12-Jun-14	12-Jun-14
DRAFT: LB1-SGS-5, 3PV, P22048cc	E406047-02	Vapor	12-Jun-14	12-Jun-14
DRAFT: LB1-SGS-5, 10PV, P73494cc	E406047-03	Vapor	12-Jun-14	12-Jun-14
DRAFT: LB2-SGS-5, P7349cc	E406047-04	Vapor	12-Jun-14	12-Jun-14
DRAFT: LB2-SGS-5 Rep, P7499cc	E406047-05	Vapor	12-Jun-14	12-Jun-14
DRAFT: LB3-SGS-5, P7349cc	E406047-06	Vapor	12-Jun-14	12-Jun-14
DRAFT: LB4-SGS-5, P7349cc	E406047-07	Vapor	12-Jun-14	12-Jun-14

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DETECTIONS SUMMARY**

Sample ID: **DRAFT: LB1-SGS-5, 1PV, P7349cc**

Laboratory ID: **E406047-01**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>m,p-Xylene</b>	<b>0.11</b>	0.10	ug/l	H&P 8260 SV	

Sample ID: **DRAFT: LB1-SGS-5, 3PV, P22048cc**

Laboratory ID: **E406047-02**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>1,1-Difluoroethane (LCC)</b>	<b>0.24</b>	0.10	ug/l	H&P 8260 SV	

Sample ID: **DRAFT: LB1-SGS-5, 10PV, P73494cc**

Laboratory ID: **E406047-03**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>Methane</b>	<b>11</b>	10	ppmv	EPA 8015M	
<b>1,1-Difluoroethane (LCC)</b>	<b>6.6</b>	0.10	ug/l	H&P 8260 SV	
<b>1,1,1,2-Tetrafluoroethane (LCC)</b>	<b>2.3</b>	0.10	ug/l	H&P 8260 SV	

Sample ID: **DRAFT: LB2-SGS-5, P7349cc**

Laboratory ID: **E406047-04**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>1,1-Difluoroethane (LCC)</b>	<b>0.11</b>	0.10	ug/l	H&P 8260 SV	
<b>Tetrachloroethene</b>	<b>0.03</b>	0.02	ug/l	H&P 8260 SV	
<b>m,p-Xylene</b>	<b>0.10</b>	0.10	ug/l	H&P 8260 SV	

Sample ID: **DRAFT: LB2-SGS-5 Rep, P7499cc**

Laboratory ID: **E406047-05**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>Tetrachloroethene</b>	<b>0.02</b>	0.02	ug/l	H&P 8260 SV	

Sample ID: **DRAFT: LB3-SGS-5, P7349cc**

Laboratory ID: **E406047-06**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>Tetrachloroethene</b>	<b>0.08</b>	0.02	ug/l	H&P 8260 SV	

Sample ID: **DRAFT: LB4-SGS-5, P7349cc**

Laboratory ID: **E406047-07**

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
<b>Methane</b>	<b>11</b>	10	ppmv	EPA 8015M	
<b>Chloroform</b>	<b>0.14</b>	0.02	ug/l	H&P 8260 SV	
<b>Benzene</b>	<b>0.02</b>	0.02	ug/l	H&P 8260 SV	

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

Sample ID: **DRAFT: LB4-SGS-5, P7349cc**

Laboratory ID: **E406047-07**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
<b>m,p-Xylene</b>	<b>0.17</b>	0.10		ug/l	H&P 8260 SV	

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Soil Gas and Vapor Analysis**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB1-SGS-5, 1PV, P7349cc (E406047-01) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	ND	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	
<b>DRAFT: LB1-SGS-5, 3PV, P22048cc (E406047-02) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	ND	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	
<b>DRAFT: LB1-SGS-5, 10PV, P73494cc (E406047-03) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	11	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	
<b>DRAFT: LB2-SGS-5, P7349cc (E406047-04) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	ND	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	
<b>DRAFT: LB2-SGS-5 Rep, P7499cc (E406047-05) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	ND	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	
<b>DRAFT: LB3-SGS-5, P7349cc (E406047-06) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	ND	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	
<b>DRAFT: LB4-SGS-5, P7349cc (E406047-07) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Methane	11	10	ppmv	1	EF41204	12-Jun-14	12-Jun-14	EPA 8015M	



Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB1-SGS-5, IPV, P7349cc (E406047-01) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
1,1,1,2-Tetrafluoroethane (LCC)	ND	0.10	"	"	"	"	"	"	"
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	"
Chloromethane	ND	0.10	"	"	"	"	"	"	"
Vinyl chloride	ND	0.01	"	"	"	"	"	"	"
Bromomethane	ND	0.10	"	"	"	"	"	"	"
Chloroethane	ND	0.10	"	"	"	"	"	"	"
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	"
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	"
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	"
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
Chloroform	ND	0.02	"	"	"	"	"	"	"
Bromochloromethane	ND	0.10	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	"
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	"
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	"
Benzene	ND	0.02	"	"	"	"	"	"	"
Trichloroethene	ND	0.02	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	"
Dibromomethane	ND	0.10	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
Toluene	ND	0.20	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.02	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	"

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
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**DRAFT: LB1-SGS-5, IPV, P7349cc (E406047-01) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14**

Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>0.11</b>	<b>0.10</b>	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>		102 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %		75-125	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.4 %		75-125	"	"	"	"	

Langan Engineering & Environmental Services  
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12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB1-SGS-5, 3PV, P22048cc (E406047-02) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	0.24	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
1,1,1,2-Tetrafluoroethane (LCC)	ND	0.10	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
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**DRAFT: LB1-SGS-5, 3PV, P22048cc (E406047-02) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14**

Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	101 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	102 %	75-125	"	"	"	"	"	"	
Surrogate: Toluene-d8	102 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	94.8 %	75-125	"	"	"	"	"	"	

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Project: LAN061214-L6  
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12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB1-SGS-5, 10PV, P73494cc (E406047-03) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	<b>6.6</b>	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
<b>1,1,1,2-Tetrafluoroethane (LCC)</b>	<b>2.3</b>	0.10	"	"	"	"	"	"	"
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	"
Chloromethane	ND	0.10	"	"	"	"	"	"	"
Vinyl chloride	ND	0.01	"	"	"	"	"	"	"
Bromomethane	ND	0.10	"	"	"	"	"	"	"
Chloroethane	ND	0.10	"	"	"	"	"	"	"
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	"
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	"
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	"
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
Chloroform	ND	0.02	"	"	"	"	"	"	"
Bromochloromethane	ND	0.10	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	"
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	"
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	"
Benzene	ND	0.02	"	"	"	"	"	"	"
Trichloroethene	ND	0.02	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	"
Dibromomethane	ND	0.10	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
Toluene	ND	0.20	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.02	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	"

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
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**DRAFT: LB1-SGS-5, 10PV, P73494cc (E406047-03) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14**

Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	105 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	96.8 %	75-125	"	"	"	"	"	"	
Surrogate: Toluene-d8	100 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	95.3 %	75-125	"	"	"	"	"	"	

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12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB2-SGS-5, P7349cc (E406047-04) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	0.11	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
1,1,1,2-Tetrafluoroethane (LCC)	ND	0.10	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>0.03</b>	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	

Langan Engineering & Environmental Services  
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12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB2-SGS-5, P7349cc (E406047-04) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>0.10</b>	0.10	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	98.8 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	96.9 %	75-125	"	"	"	"	"	"
Surrogate: Toluene-d8	101 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	97.7 %	75-125	"	"	"	"	"	"



Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB2-SGS-5 Rep, P7499cc (E406047-05) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
1,1,1,2-Tetrafluoroethane (LCC)	ND	0.10	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>0.02</b>	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	

Langan Engineering & Environmental Services  
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Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
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**DRAFT: LB2-SGS-5 Rep, P7499cc (E406047-05) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14**

Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	101 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	104 %	75-125	"	"	"	"	"	"	
Surrogate: Toluene-d8	101 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	93.9 %	75-125	"	"	"	"	"	"	

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
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Project: LAN061214-L6  
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12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB3-SGS-5, P7349cc (E406047-06) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
1,1,1,2-Tetrafluoroethane (LCC)	ND	0.10	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.02	"	"	"	"	"	"	
Bromochloromethane	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.02	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
Dibromomethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>0.08</b>	0.02	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	

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Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
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**DRAFT: LB3-SGS-5, P7349cc (E406047-06) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14**

Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	107 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	106 %	75-125	"	"	"	"	"	"	
Surrogate: Toluene-d8	100 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	97.6 %	75-125	"	"	"	"	"	"	

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Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
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Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB4-SGS-5, P7349cc (E406047-07) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
1,1-Difluoroethane (LCC)	ND	0.10	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
1,1,1,2-Tetrafluoroethane (LCC)	ND	0.10	"	"	"	"	"	"	"
Dichlorodifluoromethane (F12)	ND	0.10	"	"	"	"	"	"	"
Chloromethane	ND	0.10	"	"	"	"	"	"	"
Vinyl chloride	ND	0.01	"	"	"	"	"	"	"
Bromomethane	ND	0.10	"	"	"	"	"	"	"
Chloroethane	ND	0.10	"	"	"	"	"	"	"
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.10	"	"	"	"	"	"	"
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	"
Methyl tertiary-butyl ether (MTBE)	ND	0.10	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
Diisopropyl ether (DIPE)	ND	0.20	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	"
Ethyl tert-butyl ether (ETBE)	ND	0.20	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	"
<b>Chloroform</b>	<b>0.14</b>	0.02	"	"	"	"	"	"	"
Bromochloromethane	ND	0.10	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	"
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	"
Tertiary-amyl methyl ether (TAME)	ND	0.20	"	"	"	"	"	"	"
<b>Benzene</b>	<b>0.02</b>	0.02	"	"	"	"	"	"	"
Trichloroethene	ND	0.02	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	"
Dibromomethane	ND	0.10	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
Toluene	ND	0.20	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.10	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.02	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	"

Langan Engineering & Environmental Services  
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Reported:  
12-Jun-14 14:08

**DRAFT: Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
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**DRAFT: LB4-SGS-5, P7349cc (E406047-07) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14**

Chlorobenzene	ND	0.02	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	H&P 8260 SV	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>0.17</b>	<b>0.10</b>	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
n-Propylbenzene	ND	0.10	"	"	"	"	"	"	
Bromobenzene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.10	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.10	"	"	"	"	"	"	
Naphthalene	ND	0.02	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1.0	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	105 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	110 %	75-125	"	"	"	"	"	"	
Surrogate: Toluene-d8	101 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	93.6 %	75-125	"	"	"	"	"	"	

Langan Engineering & Environmental Services  
32 Executive Park, Suite 130  
Irvine, CA 92614

Project: LAN061214-L6  
Project Number: 700036602 / 338 S Hill St  
Project Manager: Mr. Keith Gilbert

Reported:  
12-Jun-14 14:08

**DRAFT: TPH Analysis by LUFT**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>DRAFT: LB1-SGS-5, 1PV, P7349cc (E406047-01) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	
<b>DRAFT: LB1-SGS-5, 3PV, P22048cc (E406047-02) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	
<b>DRAFT: LB1-SGS-5, 10PV, P73494cc (E406047-03) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	
<b>DRAFT: LB2-SGS-5, P7349cc (E406047-04) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	
<b>DRAFT: LB2-SGS-5 Rep, P7499cc (E406047-05) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	
<b>DRAFT: LB3-SGS-5, P7349cc (E406047-06) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	
<b>DRAFT: LB4-SGS-5, P7349cc (E406047-07) Vapor Sampled: 12-Jun-14 Received: 12-Jun-14</b>									
Gasoline (C5-C11)	ND	200	ug/l	0.01	EF41203	12-Jun-14	12-Jun-14	LUFT	

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12-Jun-14 14:08

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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